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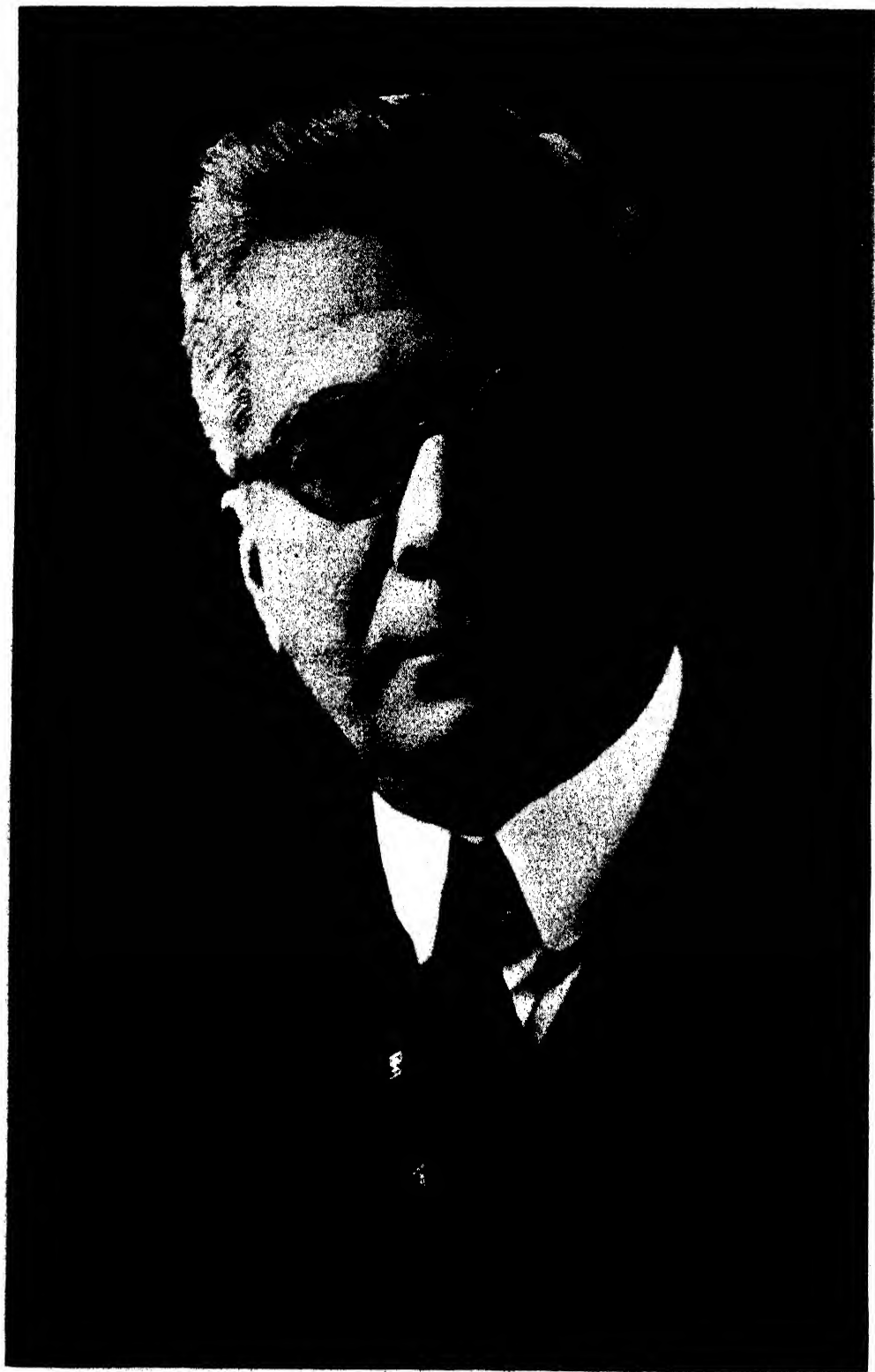
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General Gerardo Machado, President-Elect of Cuba

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VOLUME XXIII

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Cuban Government Matters

Quarantine Decree

President Zayas has signed a decree indicating that it is necessary to prevent introduction of plagues and pests injurious to agriculture, while at the same time avoiding quarantine measures that other countries may establish against the agricultural products of Cuba. Because of the fact that Porto Rico, Jamaica, the Bermudas, Mexico, Central and South America, Hawaii, Australia, the Philippines, Spain, France, Italy and other Mediterranean countries are sometimes the sources of pests to agriculture, among which are the "Mediterranean Fly" and the "Guatamala Barbe," the introduction of which into this territory is always to be feared, it is forbidden to import fruit, garden stuff, viands, seeds, live plants or parts of same, proceeding from any of the above-mentioned countries, and also from all tropical and sub-tropical countries situated between 40 degrees northern and 40 degrees southern latitude.

Provisional exception is made of potatoes from the Canary Islands and of fruit and other vegetable products proceeding from the United States north of North Carolina, which imports will be rigorously inspected, however, by Government employees. The clean seeds of garden stuffs not affected by other quarantines are excluded from the provisions, as are the fruits, plants, etc.,

consigned to the experimental station of agriculture. Any violation of this decree will be punished by a fine not exceeding \$100.00.

Gas Instruction for Cuban Soldiers

Orders have been approved for the Cuban army to receive instruction in gas attacks, especially in the use of tear gas, according to an announcement made by the Secretary of War. The use of this gas would be valuable not only in case of revolutionary disorders, but also in breaking up possible riots during strikes.

Livestock Census of Matanzas

According to the report of the Secretary of the Provincial Committee of Matanzas on Agriculture, Commerce, and Labor, that Province, which at the close of 1923 had 312,704 inhabitants, had 314,632 head of cattle, of which 176,686 were bulls or steers and 137,946 cows. The horses of the Province totaled 86,114 head, while there were 5,127 mules and 285 asses.

The Seventh Pan-American Medical Congress

Representatives of eighteen republics were in attendance at the sessions of the Seventh Pan-American Conference in Havana, which began November 5th and ended November 15th. Dr. Mario Lebreto, the provisional President, and Dr. Francisco Fernandez were untiring in their activities and won general encomiums for their ability and tact.

Meetings were held at the Academy of Science and the opening address was delivered by the Secretary of State, Dr. Carlos Manuel de Cespedes. At the closing session Saturday evening, November 15th, President Zayas gave one of his customary brilliant addresses.

Social entertainments were interspersed, including a banquet at the Vedado Tennis Club, a farewell dinner at the Country Club, visits to the Palace, and to the Morro and the Cabañas, the principal hospitals, to Trisconia—Cuba's Ellis Island, we may say as it is the Immigration Station—and receptions and five o'clock teas were enjoyed after the arduous morning sessions.

Lima has been chosen as the next place of meeting in 1925. Dr. Carlos Paz Soldan was elected Provisional President for the Eighth Pan-American Medical Congress.

The paramount subject was the bubonic plague. General Hugh Cummings was anxious regarding the pneumonic epidemic in Los Angeles and kept in close touch with matters of public health.

Dr. J. Long delivered an exhaustive address on the principal evil to contend against, the propagation of disease by rodents and other vermin.

The fly and mosquito are also dangerous and a menace to health. A plea was made to facilitate the exportation and importation of quinine, as the most efficacious remedy against malaria—so prevalent in tropical climates.

At a memorial session in honor of Dr. Finlay he was eulogized by Dr. Diego Tamayo, who also paid a fitting tribute to Dr. Gorgas and lauded his work in the extermination of the "scourge" of Cuba and Panama—the yellow fever, as it is commonly named.

The representative from Brazil, Dr. Nascimento Gurgel de Amaral, gave a maternity gift and desires that the care of infancy and child-welfare be made the main subjects for the next Pan-American Medical Conference.

Dr. Hugo Roberts, delegate for Cuba, conveyed to the Conference a project for vegetable quarantine and apropos—the Secretary of Agriculture, General Betancourt, condemned a large cargo of Spanish grapes which arrived from Almeria. Traces of the Mediterranean "black fly" were found in the fruit. The cargo will be shipped to Holland.

The delegate from Argentina, Dr. Araoz de Alfaro, advocated that child-welfare should be made a definite object for the improvement of the races.

Argentina also advocates a crusade against alcoholism.

Dr. J. Long advocates good roads as conducive to the preservation of health.

Dr. Norman White, who has recently visited the Far East, was in the American delegation at the Conference.

The maternity prizes were awarded at the National Theater, Sunday morning, November 16th, beginning at ten o'clock. Dr. Jose Lopez del Valle has labored earnestly in this work for the betterment of infancy and child-welfare.

President Zayas and Mrs. Zayas were present and also attended the parade of two thousand school children in the Stadium of the University on Sunday afternoon.

Delegates to the Seventh Pan-American Medical Conference

In alphabetical order, we give the names of the delegates.

ARGENTINA: Drs. Gregorio Araoz and Joaquín Llambias.

BRAZIL: Drs. Nascimento Gurgel and Raul Almeida Magalhaes.

CHILE: Dr. Carlos Graef.

COLOMBIA: Dr. Ricardo Gutiérrez Lee.

COSTA RICA: Dr. Jose Varela Zequiera.

CUBA: Dr. Mario G. Lebreto, President of the Conference. Dr. Jose a López del Valle, Dr. Hugo Roberts, Dr. Diego Tamayo, Dr. Francisco Fernández. General Secretary, Dr. Domingo Ramos.

SALVADOR: Dr. Leopoldo Paz.
UNITED STATES OF AMERICA: Dr. Hugh S. Cummings, Surgeon-General. Dr. Richard Creel, Dr. Cronin, Dr. Patterson, Dr. Norman White, Dr. Long.

GUATEMALA: Dr. Jose Cubas y Serrate.

HAYTI: Dr. Charles Mathon.

HONDURAS: Dr. Aristedes Agramonte.

MEXICO: Dr. Alfonso Pruneda.

PANAMA: Dr. Jaime de la Guardia.

PARAGUAY: Dr. Andres Gubetich.

PERU: Dr. Carlos E. Paz Soldan.

SANTO DOMINGO: Dr. Perez Cabral.

URUGUAY: Dr. Justo Gonzalez.

VENEZUELA: Dr. Enrique Tejera.

VENEZUELA: Dr. Antonio Smith.

Dr. J. Long represented the Pan-American Office of Sanitation.

In brief, the main subjects enjoined for the next Pan American Conference at Lima are Eugenics, Child Welfare, Quarantine Restrictions and other matters. Especially the Betterment of the Race.

The delegates desired to have a sanitary inspector or health officer appointed by every government. Also to have strict rulings for ships to present a clean bill of health and to report upon arrival any illness on board.

The budget for maintenance of the Pan American Union was voted to go into effect June, 1925, and is as follows:

BRAZIL: Population, 30,635 inhabitants, will contribute \$7,863.46.

ARGENTINA: Population, 9,548,093; quota \$2,450.78.

HONDURAS: Population, 367,114; quota \$163.53.

SANTO DOMINGO: Population, 47,905; quota, \$230.35.

ECUADOR: Population, 2,000,000, quota, \$513.35.

GUATEMALA: Population, 2,490,000; quota, \$514.61.

CHILI: Population, 3,754,733; quota, \$963.76.

COLOMBIA: Population, 5,855,077; quota, \$1,502.56.

COSTA RICA: Population, 485,049; quota, \$124.56.

CUBA: Population, 3,143,210; quota, \$806.79.

UNITED STATES: Population, 107,281,475; quota, \$27,523.87.

MEXICO: Population, 14,202,662; quota, \$3,645.30.

PANAMA: Population, 446,698; quota, \$114.50.

PARAGUAY: Population, 1,000,000; quota, \$256.68.

PERU: 4,620,000; quota, \$1,185.85.

URUGUAY: Population, 1,225,914; quota, \$314.66.

VENEZUELA: Population, 2,400,604; quota, \$616.12.

NICARAGUA: Population, 600,000; quota, \$163.00.

SALVADOR: Population, 1,597,000; quota, \$328.01.



Sr. Fernando Ortiz

Señor Fernando Ortiz

By R. G. Ward

Señor Fernando Ortiz, the writer of the article relating to the Isle of Pines in this issue, is a Cuban of international reputation as a lawyer, author and literateur. He studied in, and was graduated from the best educational institutions in Cuba, Spain and Italy. He has served as Fiscal Attorney for the Court of Appeals in Havana; and, during nine years, as professor of constitutional law, political economy and public finance in the University of Havana. He is the author of numerous books relating to Cuba and Cuban problems; is president or vice president of several of the oldest and best known economic and cultural societies and social organizations in Cuba; and has been decorated by the Italian government as a "Commander of the Crown of Italy." His review of the historic status of the Isle of Pines should, therefore, be worthy of consideration and credence.

Havana Correspondence

Election day came and passed according to the almanac, and in spite of predictions to the contrary, the event was comparatively free from disorders. The result was the overwhelming defeat of the Conservative candidate, General Mario G. Menocal, by General Gerardo Machado, of the Liberal Party.

General Machado is a man of very high character, patriotic and ambitious to do what is right. While Secretary of the Interior under President Gomez, he was always to be found at his post, attentive to all classes and ready to help them. He is also a staunch friend of the American people. It is believed that his election will bring general progress and prosperity to Cuba.

The president-elect is fifty-three years old, was active in the Cuban war of independence and was raised to the rank of general for gallantry. General Machado is a land-owner, planter and manufacturer, and is vice-president of the Cuban branch of the Electric Bond & Share Co., Havana office.

As soon as the results of the election were learned, General Menocal sent a letter to General Machado, acknowledging his defeat and congratulating General Machado. This is probably the first time in the history of Latin-American politics that this act of courtesy has taken place.

Senator Aurelio Alvarez, presiding at a recent meeting of the Conservative party, also admitted defeat of their candidate, and as an act of true patriotism on the part of himself and his followers, stated he would do all in his power to assist the president-elect and his cabinet in any and all legislation that would be proposed for the best interests of the country, and that political opposition on the part of those conservative members of Congress who remain in office would never be exercised unless some measure should be proposed that in his estimation was prejudicial to the best interests of Cuba. Cuba, therefore, is to be congratulated and all credit is due for the present attitude of her politicians and the promises made on both sides for the future.

SUGAR.—Cuba's public welfare and prosperity is seriously menaced by the attitude of the workers in the cane fields and sugar mills, which is deplorable when all the forces of nature, sunshine, soft winds and rainfall have combined to aid the country in the production of probably the greatest sugar crop known in the history of the Republic.

President Zayas called into conference Secretary of Government Iturralde, and Secretary of Agriculture Betancourt, and subsequently Secretary Iturralde invited the managers of the mills affected by the strike and the labor leaders to meet him in an effort to bring about a settlement of the struggle. It was intimated at this conference that lack of co-operation on either side would be considered by the government as an attack on the chief industry of Cuba. Another conference was held on November 11th between Secretary Iturralde, the Commander-in-Chief of the Army and the military governor of Camaguey, at which it is understood measures were considered to prevent a tie-up of the crop. Later President Zayas addressed the representatives of the workers and employers in the sugar mills, stating that the government was anxious to co-operate toward a harmonious settlement. The proclamation further stated that the principal issue seemed to be the demand of the laborers for recognition of their union and the closing of the sugar mills to non-union men; that if the mill-owners and colonos were in agreement with these demands, the government would interpose no objections; but if the latter refused the government would be compelled to take the position that while persons so desiring, have the right to organize unions, they have no right to impose the conditions under which other workmen may be employed. Consequently the government must protect all those who may desire to work and prevent coercion of those who do not desire to join the union; further, having information that certain foreigners were taking an attitude prejudicial to the national prosperity, the government would regret the necessity of having to resort to the expulsion of such foreigners. The President later authorized the deportation of six Spanish labor leaders for fomenting the strike. They were put aboard the S.S. *Christopher Columbus* bound for Spain. It is expected that there will be further expulsions decreed shortly.

Finally, President Zayas invited owners and employees to come to an agreement that would end the strike and make further measures by the government unnecessary.

However, up to the present writing the strike has not been settled. The government has authorized the importation of 5,000 Antillians by the United Fruit Company and 2,500 West Indian laborers by the Cia. Frutera y Azucarera to work in their mills.

Military supervisors have been appointed for several of the sugar mills in Camaguey province and others will be appointed for some of the mills in Santiago de Cuba province. This is the first time that military supervisors have been named with the duty entrusted to them of guaranteeing the public safety and if necessary directing the grinding in the mills. Those mills which already have military supervisors appointed are:

Central Florida	Central Estrella	Central Cespedes
Central Agramonte	Central Pilar	Central Punta Alegre
Central Camaguey	Central Vertientes	Central Jatabonica

VEGETABLE GROWING.—The outlook for successful vegetable growing this fall and winter is very encouraging. Large fields in the fertile sandy soils of Pinar del Rio, near Candelaria and San Cristobal, some fifty miles west of us, are being planted at the present time in tomatoes, peppers, egg plants and lima beans. The work is being carried on systematically with tractors and modern machinery, under the direction of skilled growers and packers, therefore we have every reason to believe that our ferries between Havana and Key West will soon be carrying train-loads of fresh vegetables to the large centers of distribution in the United States. According to reports from New York, shipments of lima beans, one of our most profitable crops, have already reached that city and been sold at \$6 per basket, which leaves a very satisfactory profit to the grower.

Experiments, too, are being tried with the use of rubberoid thermogen, a form of tarpaper, manufactured for the purpose in various widths, that has been tried out in the pineapple fields of Hawaii and Puerto Rico with splendid results. Although the use of this prepared paper is rather expensive in the beginning, the saving in hoeing, pulling weeds, and cultivation, as well as in the conservation of moisture, which is so essential to success during the dry months of the Cuban winter, will more than compensate for the original cost of the material. Other companies who are preparing to establish large pineapple plantations further west in Pinar del Rio are planning to use this variety of surface-covering paper, since the benefits accruing to the pineapple industry through increased size, and a better quality of fruit, has been satisfactorily demonstrated both in Hawaii and Porto Rico.

Citrus fruit growers of Cuba within the last few days have been greatly encouraged by the visit of the advance agent of the Cyanide Chemical Co., who is credited with cleaning up the orange groves of California, and freeing them from the numerous pests in the form of fungi and bacteria that were causing the people of that state serious losses. For several years past the Department of Agriculture has carried on a stubborn but apparently hopeless fight against the black fly, which has taken possession of all the groves within a radius of fifty miles of Havana. Mr. R. H. Martin, Jr., who represents the above-mentioned company, is at present visiting the large groves in the Province of Camaguey. He has promised to co-operate with the Experimental Station at Santiago de las Vegas in starting a systematic campaign with the use of cyanogen gas that will put an end to the black fly and save our citrus groves from destruction.

Appropriation for Cyclone Sufferers

President Zayas has issued a decree appropriating \$20,000 for the relief of inhabitants of Pinar del Rio who suffered from the recent cyclone. This makes total government relief appropriations amount to \$50,000.

Homage from Brazil

The Faculty of Medicine of the University of Rio de Janeiro unanimously approved a resolution to place in the assembly hall of its building a tablet containing the names of eight Cuban medical students shot in 1871. The stone is to be a token of the sentiment of Latin American confraternity and a gesture of friendship to Cuba.

Cuba's Title to the Isle of Pines

*As written by Fernando Ortiz of Havana, Cuba
And Translated by R. G. Ward of New York City*

In a recent editorial of "The New York Times," under the caption, "TITLE TO THE ISLE OF PINES," reference was made to the fact that certain Americans, owning lands on the Isle of Pines, had called upon President Coolidge, at Washington, and told him that it would be a "*blot on American history*" for the Senate to ratify the pending treaty confirming Cuban sovereignty over that island; which treaty was submitted by President Roosevelt to the American Senate, in 1904, and has already been ratified by the Cuban Government, that approved and accepted it as evidence of good faith on the part of the Government of the United States in its dealings with the Cuban people, to the end that there should be no blot upon American *honor*, on which that people did, do and must confidently rely: Such confidence being more than justified in this particular instance, by the unqualified and unequivocal statement made by Mr. Root, as proclamatary of the attitude of the Government of the United States, which was quoted from in the editorial mentioned, to the effect that he had no doubt whatever that the Isle of Pines was a part of Cuba, and that "it is not and never has been American territory"; adding that "This is the view with which President Roosevelt authorized the pending treaty and Mr. Hay signed it," which treaty reads as follows:

"The United States relinquishes in favor of the Republic of Cuba all claim of title to the Island of Pines, situate in the Caribbean Sea, near the southwestern part of the Island of Cuba, which has been or may be made in virtue of Articles I and II of the Treaty of Peace between the United States and Spain, signed at Paris on the tenth day of December, eighteen hundred and ninety-eight."

"This relinquishment, on the part of the United States of America, of claim of title to the said Island of Pines, is in consideration of the grants of coaling and naval stations in the Island of Cuba, heretofore made to the United States of America by the Republic of Cuba."

"Citizens of the United States of America, who, at the time of the exchange of ratifications of this treaty, shall be residing or holding property in the Island of Pines, shall suffer no diminution of the rights and privileges which they have acquired prior to the date of the exchange of ratifications of this treaty; they may remain there or may remove therefrom, retaining, in either event, all their rights of property, including the right to sell or dispose of such property, or its proceeds: and they shall also have the right to carry on their industry, commerce and profession, being subject, in respect thereof, to such laws as are applicable to other foreigners."

It is understood that the committee of American landowners referred to, who called upon President Coolidge to protest against the ratification of the Isle of Pines Treaty, mentioned, claim to have recently discovered documentary evidence which proves conclusively that, prior to the year 1855, the Isle of Pines was governed from the City and Island of Santo Domingo; and that, between that date and the signature of the Treaty of Paris, which terminated the Spanish-American war, *it had been governed from Bejucal*, located in the Province of Havana, *and not from Havana*: nor was it included "within the territorial, administrative and political entity of Cuba," as generally understood and accepted! It should be clear that the acceptance of such a contention would apply with equal force to the large islands of Cayo Romano and Sabinal, lying on the north coast of Cuba, which, administratively speaking, have been governed from Puerto Principe—now Camaguey—located in the recently re-named Province of Camaguey; and also to the thousand or more smaller islands and islets, comprised within the territorial and political entity of Cuba, which surround that island and, in administrative and judicial matters, are governed from it. The following are the historic and chronological facts applying to the subject, which, under the circumstances, may be both interesting and useful at this time.

The Isle of Pines was discovered by Columbus in 1494, during his second voyage; since which time it and some thirteen hundred other small islands and cayos adjacent to the Island of Cuba have been governed by the same authorities that have governed Cuba.

Since 1512, beginning with Diego Velasquez, whose authority extended "*over Cuba and its dependent isles and keys*," Cuba has always had a governor of its own; and, since 1556, Havana has been the recognized capital of the whole of that Island and its outlying insular territory, of which the Isle of Pines has been reckoned as a component area from its discovery. Therefore, except as to Ecclesiastical matters and with reference to judicial appeals from the decisions of the lower Cuban courts to the *Audiencia*, or Supreme Court of the Spanish West Indies, which was first established at Santo Domingo, Cuba has never been subject in any way to the jurisdiction of that Island. Moreover, in the year 1796 the Audiencia of Santo Domingo ceased functioning, and, on June 30, 1800, the Audiencia of Puerto Principe was created and assumed judicial authority over Cuban territory. This innovation having been forced upon the Spanish Government by the loss of its colony of Santo Domingo as a result of the revolution in Haiti and the invasion of that colony by the Haitian negroes under the command of Toussaint L'Ouverture. From 1800 the Isle of Pines, and all other Cuban territory, was subject to the Audiencia of Puerto Principe, in matters of a judicial character, until, on April 8th, of the year 1839, the *Real Audiencia of Havana* was created, with jurisdiction over the territorial entity of Cuba.

Spanish sovereignty over the Island of Santo Domingo having ceased to exist, on the 16th of July, 1804, a Pontifical Decree transferred the Archbishop from Santo Domingo to Santiago de Cuba, with the title of Primate of the West Indies; consequently, from this time onward, the ecclesiastical authority previously exercised from Santo Domingo over Cuba, including the Isle of Pines, ceased to exist. These have been the only circumstances indicating that the Isle of Pines, as an integer of the territorial entity of Cuba, has ever been subject to the Authorities of Santo Domingo! Indeed, the discovery of an Indian Temple on the Isle of Pines, made by the writer, indicates quite clearly that the aborigines of that island were *Ciboneys*, and of the same race that occupied the Western portion of the Island of Cuba; while the inhabitants of the Eastern portion of Cuba were *Tainos*, and, therefore, kin to the aboriginal race of the Island of Santo Domingo, from which came Hatuey, the Indian Chief who led the first serious insurrection against the Spanish Conquistadores, which indicates clearly that, except in matters ecclesiastical and judicial, the Isle of Pines has *never been governed* from Santo Domingo!

All maps of Cuba, beginning with the oldest and including those executed during the sixteenth century, by the best known cartographers, include the Isle of Pines as belonging to Cuba; and this is true of the maps made in the United States, including those officially authorized and recognized by the Government of the United States.

Since 1581, the Island of Cuba and its thirteen hundred islets and cayos, including the Isle of Pines, have been governed absolutely independently of Santo Domingo, *except in judicial and ecclesiastical matters*; for, in that year, the first *Captain General of Cuba* was appointed by the Spanish Government with ample powers covering the Island of Cuba and all contiguous islands. From this time dates the white colonization of the Isle of Pines, by fishermen, cow-herders, wood-cutters and charcoal-burners from Cuba, until, in 1596, Drake and his marauders were tempted to sack and pillage the island; and, because of this invasion of his territory, Don Juan Maldonado Barnuevo, the then Captain General of Cuba, dispatched a squadron, under the command of Admiral Delgadillo, which dispersed, from the waters surrounding the Isle of Pines, the ships of Drake, who had recently died.

In the year 1765 Count de Ricla, then Captain General of Cuba, created the "*partido de la Isla de Pinos*," naming a functionary to care for the public order of the district, to be known as the "*Capitan Pedaneo*." In 1773, another Captain General of Cuba, the Marques de la Torre by name, ordered that the inhabitants of the Isle of Pines should pay an annual tax in cattle for the sustenance of the City of Havana; which was confirmed in 1776 and demonstrates that the first taxes paid by the residents of the Isle of Pines were imposed by the Government of Cuba.

The first census of the population of Cuba was taken in 1774, and included the inhabitants of the Isle of Pines, who then numbered only seventy-eight (78) persons.

In 1797, the then Captain General of Cuba, Bascourt by name, sent Captain Tirry, of the Spanish Navy, to the Isle of Pines to study the matter of colonizing that island. A similar study was ordered in the year 1823 by the then Captain General of Cuba, Vives by name; the report of which study was approved by that Captain General and also by the then King of Spain, who, by a decree dated August 1, 1828, provided that the *Colonia de la Reina Amalia* should be founded in the Isle of Pines and governed from the City of Havana by a *subdelegate* who should reside in the Isle of Pines; thus demonstrating that the Isle of Pines was in fact a Spanish Colony subject, *administratively*, to the Government of Cuba, domiciled in the City of Havana. This *Colonia Amalia* in the Isle of Pines, had a church, which was subject to the curate of the town of Quivicán, located in the Province of Havana; also a military commandante, a lieutenant of marine, a justice of the peace, an agent of the Treasury, a public hospital, a guard of soldiers and a gunboat, all of which were subordinate to their respective authorities at Havana.

Since 1830 the Cuban authorities sent criminals to the Isle of Pines; and sometimes Cubans suspected of revolutionary affiliations *who, however, could not be lawfully sent beyond the limits of Cuban territory*: but, as the Isle of Pines was recognized as *Cuban territory* the Captains General were enabled to banish unruly Cuban patriots from the Island of Cuba to the Isle of Pines without committing any official or legal violations.

During the term of one of the Captains General of Cuba, extending from 1823 to 1832, the territory of Cuba was divided into *Three Military Departments*, known as the Eastern, Central and Western Departments; the Isle of Pines being included in the Western Department. Its inhabitants were also included in the Cuban census of 1827, and it is shown as Cuban territory in an official map executed under the orders of the same authority. Furthermore, the map of Cuba, made in 1829 by Laborde, shows the Isle of Pines as belonging to the *Provincia Maritima de la Havana*, of which *province* that island, with all of its adjacent cayos, constituted the "*Fifth District*," in charge of the Lieutenant of Marine residing thereon. In the year 1880, the Isle of Pines was constituted a *municipality* which has been since known as the "*Municipio de Nueva Gerona*;" and when Major-General Brooks took possession of Cuba in behalf of the Government of the United States, on the 1st of January, 1899, the Municipality of the Isle of Pines continued belonging to the Province of Havana, under authority of the Cuban governor of that province: moreover, the census of 1899, that was taken by the War Department of the Government of the United States, includes the Isle of Pines as a part of Cuba, in the sense of its geographical and political entity.

In 1900, the "Pineros," or naturals of the Isle of Pines voted for Delegates to the Constitutional Convention, which, at the instance of General Wood, drafted the Constitution of the Cuban Republic, for whose National Independence those Pineros had fought, in common with all other Cuban patriots; General Fitzhugh Lee having testified that, when visiting the Isle of Pines in 1899, that he encountered there a squad of the "soldiers of liberty" under the command of a captain, all of whom had done service in the small but heroic armies of "Cuba Libre."

Politically the Isle of Pines has always been subject to Havana; which is verified by the fact that, in every election, past and present, it has voted *conjointly with the citizens of the Province of Havana* on all matters of public interest. Bejucal, *through which* the American landowners on the Isle of Pines, mentioned, are said to claim that that Island has heretofore been governed *from Santo Domingo*, and *not from Havana*, is a municipality located in the southern part of the Province of Havana, in the Island of Cuba. Prior to the development of Guines and Batabano, Bejucal was the principal center of wealth in that part of the Island of Cuba; and it was from there that people sailed for the Isle of Pines, as well as for Jamaica and other islands located in the Caribbean Sea, including points on the South Coast of Cuba. But Bejucal has never been the seat of government for the Isle of Pines. It is true, however, that, since 1855, and until recently, the Isle of Pines formed part of the *Judicial District* of Bejucal; but this does not signify that the authorities at Havana did not have jurisdiction over the Isle of Pines: for the Audiencia, or Supreme

Court of Havana was certainly superior to the judge at Bejucal, just as that judge in turn would be superior to the justice of peace in the Isle of Pines.

The Isle of Pines and Municipality of Bejucal have *both* belonged to and formed a part of the Province of Havana, since Cuba was subdivided into *Six Provinces*, in the year 1879; just as both had previously belonged to and formed a part of the Western Department of Cuba. Or, in other words, the Isle of Pines and Municipality of Bejucal had always been subject to the superior authorities of Havana in political, judicial, military, administrative, fiscal, and ecclesiastical matters. To say that the Isle of Pines does not belong to and form a part of Cuba, because it has, *in judicial matters only*, been administered in part from Bejucal and not from Havana, would be to contend that Staten Island does not belong to or form a part of the United States, because its local affairs are administered from New York.

The jurisdiction and authority of the Captains General of Cuba extended from Havana to and over all of the thirteen hundred or more islands in the vicinity of that Island; for Havana was the centering point of the fleets of Spanish merchantmen and ships of war that kept the mother country in touch with its rich colonies in the Gulf of Mexico, the Caribbean Sea and the West India Islands: indeed they extended over Florida, which included also Louisiana up to the year 1769, when that territory was ceded to France. In view of these puissant facts is it reasonably possible, or at all probable, that the Isle of Pines was the one area not covered by such authority or included within such territorial jurisdiction? These facts should certainly prove that the Isle of Pines has always been, is, and should be regarded as Cuban territory! Why, then, should anyone of intelligence question the fact?

At this point the following quotation, from the fourth edition of Wm. Edward Hall's "Treatise on International Law," published at London in 1895, *before the Spanish-American War and the resulting Treaty of Paris gave occasion to question the territorial integrity of Cuba*, is both pertinent and worthy of consideration. In discussing the "Territorial Property of a State," he says that "it comprises the whole area of land or water included within the definite boundaries ascertained by occupation, prescription, or treaty—together with a certain margin of water—when such area abuts upon the sea"; adding that "certain physical peculiarities of coasts, in various parts of the world, where lands impinge upon the sea in an unusual manner, require to be noticed as affecting the territorial boundary," and concludes by saying: "*To take a specific case.* On the south coast of Cuba the Archipelago de los Canarrios stretches from sixty to eighty miles from the mainland to *La Isla de Pinos*, its length from the Jardines Bank to Cape Frances is over a hundred miles. It is enclosed partly by some islands, but mainly by banks, which are always awash, yet upon which, as the tides are very slight, the depth of water is at no time sufficient to permit of navigation; spaces along these banks, many miles in length, are unbroken by a single inlet; the water is uninerrupted, but access to the interior gulf or sea is impossible. At the western end there is a strait, twenty miles or so in width, but not more than six miles of channel intervene between two banks which rise to within seven or eight feet from the surface, and which do not consequently admit of the passage of sea-going vessels. In cases of this sort the question whether the interior waters are, or are not, lakes enclosed within the territory, must always depend upon the banks, and the width of the entrances. Each must be judged upon its own merits. But, *in the instance cited*, there can be little doubt that the whole Archipelago de los Canarrios is a mere salt water lake, and that the boundary of the land of Cuba runs along the exterior edge of the banks," which includes the Isle of Pines!

The protocol of agreement of August 12, 1898, outlining the basis of peace between the United States and Spain, stipulates:

ARTICLE I.—Spain will relinquish all claim of sovereignty over and title to Cuba.

ARTICLE II.—Spain will cede to the United States the Island of Porto Rico, and other islands now under Spanish sovereignty in the West Indies, and also an island in the Ladrões, to be selected by the United States.

And the treaty of peace, ratified on April 11, 1899, contains the following:

ARTICLE I.—Spain relinquishes all claim of sovereignty and title to Cuba.

ARTICLE II.—Spain cedes to the United States the Island of Porto Rico, and other islands now under Spanish sovereignty in the West Indies, and the Island of Guam in the Marianas or Ladrones.

What were these *other islands*? They were La Mona and other small islands near Porto Rico! But the claim, put forth by the American landowners on the Isle of Pines, referred to, would indicate that the United States had acquired all of the islands of the Spanish West Indies, *except the Island of Cuba*, several of which, such as the Isle of Pines, Cayo Romano and Cayo Sabinal, have areas larger than that of the Virgin Islands, recently purchased by the United States from Denmark—and this, too, without consideration of the geographical, historical and political accepted facts related thereto! Certainly such a construction of the language of the protocol and treaty quoted is as applicable to any and all of these “other islands” as it is to the *Isle of Pines*, if no consideration is to be given to the facts mentioned; all of which can be readily verified by anyone who will take the trouble to make the necessary research in any of the best known libraries of the United States. A decision of the Supreme Court of the United States, rendered by Chief Justice Fuller, on April 8, 1908, in the case of *Pearcy vs. Stranahan*, which made the same claims, supported by substantially the same arguments now presented by the American landowners on the Isle of Pines, demonstrates conclusively that such contention as to the legal status of that island is absolutely erroneous, and that the word “Cuba” contained in the Protocol and Treaty of Peace, mentioned, signifies the *political entity* that was comprehended under Spanish Sovereignty, up to the year 1898; and states that, “in view of the joint resolution of April 20th, 1898 (demanding that the Government of Spain relinquish its authority and Government in the Island of Cuba, and withdraw its land and naval forces from Cuba and Cuban waters) it seems clear that the Isle of Pines *was not* supposed to be one of the ‘other islands’ ceded by ‘Article II’ of the Treaty of Paris: concluding that, “as the United States has never taken possession of the Isle of Pines, and as it has been and is being governed by the Republic of Cuba, it has remained *foreign country* within the meaning of the ‘laws of the United States.’” This decision also mentions that “on or about August 14th, 1899, the United States War Department, in an official letter, stated that, “the Isle of Pines was ceded to the United States, and is, therefore, a part of our territory”; and also that certain “maps and other data, prepared and issued by the General Land Office of the Department of the Interior, indicate the Isle of Pines as United States territory”: but adds that “we do not regard (these matters) as seriously affecting the conclusion that the Executive has consistently acted on the determination that the United States had *no* substantial claim to the Isle of Pines, under the Treaty” of Paris.

On March 2d, 1901, the so-called “Platt Amendments” to the proposed Cuban Constitution were promulgated, and embodied in the Army Appropriation Act; Article VI reading as follows: “That the Isle of Pines shall be *omitted* from the proposed constitutional boundaries of Cuba; the title thereto being left to future adjustment by treaty.” It is idle and useless to speculate as to the reasons or motives for the insertion of this Article in those Amendments. At the time that Article was inserted in such Amendments, it was the opinion of Senor Gonzalo de Quesada, the first Minister from Cuba to Washington, that it was thought in the United States that the Isle of Pines might serve *as a naval base* in the Caribbean; or, in any event, as a *diplomatic lever* in effecting the then pending negotiations looking to the acquisition of territory surrounding the Bays of Guantanamo and Bahia Honda as a Naval and Coaling Station, for which purpose it was actually utilized. The First and Second Articles of the pending and unratified treaty state specifically that “The United States of America relinquishes, in favor of the Republic of Cuba, all claim (*not right*) of title to the Isle of Pines . . . which has been or may be made, in virtue of Articles I and II of the Treaty of Paris”; and that “This relinquishment, on the part of the United States of America, of claim (*not right*) of title to said Isle of Pines, is *in consideration* of the grants of Coaling and Naval Stations in the Island of Cuba, heretofore made to the United States by the Republic of Cuba”: Which stations are now, and since July 2d,

1903, have been actually in the possession of the United States, although Cuba has not yet received the "consideration" for which they were specifically granted.

On November 27th, 1905, the Hon. Elihu Root, then Secretary of State, replying to a communication from the President of the American Club of the Isle of Pines, stated that: "The Island is lawfully subject to the control and Government of the Republic of Cuba, and you and your associates are bound to render obedience to the laws of that country so long as you remain in the island. If you fail in that obedience, you will be justly liable to prosecution in the Cuban Courts, and to such punishment as may be provided by the laws of Cuba for such offenses as you commit. You are not likely to have any greater power in the future. The Treaty now pending before the Senate, if approved by that body, will relinquish all claim of the United States to the Isle of Pines. *In my judgment the United States has no substantial claim to the Isle of Pines. The Treaty merely accords to Cuba what is hers, in accordance with international law and justice.* At the time of the Treaty of Peace, which ended the war between the United States and Spain, the Isle of Pines was, and had been for centuries, a part of Cuba. I have no doubt whatever that it continues to be a part of Cuba, and that it is not and never has been territory of the United States. This is the view with which President Roosevelt authorized the pending Treaty, and Mr. Hay signed it, and I expect to urge its ratification. *Nor would the rejection of the pending Treaty put an end to the control of Cuba over the Island.* A treaty directly contrary to the one now pending would be necessary to do that, and there is not the slightest prospect of such a Treaty being made. You may be quite sure that Cuba will never consent to give up the Isle of Pines, and that the United States will never try to compel her to give it up against her will."

In the year 1906, former President and now Chief Justice Taft, when Provisional Governor of Cuba, stated that it would be "absolutely impossible to recognize for one moment that the Isle of Pines is not completely under the jurisdiction of the Provisional Government of Cuba," and added that any action on its part, looking to the separation of the Isle of Pines from Cuba, "would be a violation of a sacred trust."

On February 20th, 1903, General Leonard Wood, then Military Governor of Cuba, wrote to Mr. Root, then Secretary of War, as follows:

"All Americans in the island (Isle of Pines) are living under exactly the same conditions as other foreigners, and, if they comply with the laws in force, it is safe to say that they will not have any difficulty or need any protection. At the time these people purchased property (in that island) they understood distinctly that the question of ownership of the Isle of Pines was one pending settlement and in locating there they took the risks incident to the situation."

Finally we have the authority of Mr. James Brown Scott, the writer of a well considered article favoring the ratification of the pending Treaty that was published in The American Journal of International Law for January, 1923, for believing that the Hon. Charles E. Hughes is in complete accord with his illustrious predecessors, mentioned, with reference to the political and legal status of the Isle of Pines; which, it is hoped, the foregoing amply demonstrates, has always been, is, and always will be, an integral part of Cuba! Surely no higher authorities can be cited in justification of that hope; and, in concluding, it may be stated, as an axiomatic truth, that no intelligent Cuban questions its ultimate realization: although some doubts may be justly entertained as to the wisdom of its long deferment. We Cubans recognize that the Platt Amendments, and the Treaties resulting herefrom, give to the United States *special rights* in relation to the affairs of Cuba; but we also believe that these same *rights* carry, and *impose* upon the United States, *corresponding duties*: and the interest of both peoples, including the continued development of those cordial and inspiring bonds of sympathetic consideration that should unite them, *demand* that the United States perform its *duties* towards a weaker but confiding people.

In face of the above cited facts, the continued postponement of the ratification of the pending Treaty of the Isle of Pines, by the American Senate, is an inexplicable enigma to the Cuban people, who have heretofore had, and want always to have, a boundless confidence in the high purposes, unselfishness, sense of justice and good faith of the people

and Government of the United States, in all of their dealings and relations with the people and Government of Cuba. Why, then, should such an irritating thorn be left indefinitely to fester in the Cuban flesh, and thus contribute to lessen, if not actually to destroy, that confidence and faith? We Cubans feel that it is not alone a matter of *honor and good faith*, but also of *wisdom and good policy*, that *it should not be!* For it is unquestionably a provocative and justifying cause of Anti-Americanism in Cuba.

Cuba Cane Sugar Corporation

Ninth Annual Report

For the Fiscal Year Ended Sept. 30, 1924

NOVEMBER 18, 1924.

TO THE STOCKHOLDERS:

Your Board of Directors submits herewith the Annual Report of the Cuba Cane Sugar Corporation for the fiscal year ended September 30, 1924.

The production of raw sugar during the year was 3,683,291 bags (of 325 lbs.), as compared with 3,284,731 bags of the previous year. This increase in production of approximately 12% over the last crop, is due to the increase in the quantity of cane ground, increase in the sucrose content of the cane, and the company's ability to reduce its manufacturing losses.

Your company has continued its policy of increasing the cane supply to more closely equal the capacity of your mills. Only a small portion of the new cane had matured during the period of the last crop. The tonnage of cane ground during the 1923/1924 crop was approximately 5.6% in excess of the previous crop. The average percentage of sucrose in the cane for the 1923/1924 crop was 13.21%, as compared with 12.74% for the previous crop; while the total manufacturing loss was only 1.99%, the lowest in the history of the Company.

At September 30th, all of the sugars produced by your company had been sold, with the exception of 104,607 bags; and the average price obtained this year was 4.456c F. O. B. per pound. The entire cost of manufacturing and delivering the sugars, including all expenses in New York and Havana, was 3.552c per pound. Of this cost, 2.455c represented cost of cane, the balance of 1.097c consisting of operating and all other expenses.

The operating profit for the year was \$12,511,718.64, and after providing for net interest charges on bonds and bank loans and taxes paid during the year, and providing for unadjusted claims the sum of \$400,000.00, there remained a net operating profit for the year of \$9,711,426.96, which was carried over to surplus.

From surplus there was set aside the usual reserve for depreciation of \$1,750,000.00.

These earnings after depreciation are equivalent to \$15.92 per share on the 500,000 shares outstanding of preferred stock, or after allowing for \$7.00 per share on the outstanding preferred stock, there would be a balance equal to \$8.92 per share on the 500,000 shares of outstanding common stock. This does not take into account the accumulated dividends on the preferred stock.

The balance sheet shows that the net current assets of your company, including advances to colonos, company's investment in growing cane and prepaid expenses for the future crop, at September 30, 1924, amounted to \$20,543,304.79, as against \$16,862,102.34 for last year.

Your company has no floating debt, and careful estimates indicate that the company will not become a borrower until the production of sugar for the 1924/1925 crop will have begun.

In addition to the \$1,961,662.72 cash in banks, your company held refiners' acceptances totalling \$1,517,560.51, the cash for which was received within ten days after the closing of the fiscal year.

Because of the stronger financial position, your company was able to effect a saving in interest charges during the year of \$519,387.99.

During the past year your company has made a careful survey of its various properties, in order to adjust its book values to conservative actual values, and as a result, the sum of \$1,500,000 for dismantling and obsolescence has been charged to surplus account, and it is believed that the net figure of \$80,576,976.96 now appearing in the Balance Sheet represents conservative valuations. Likewise, your company has carefully analysed all of its current assets, including Colono advances and investment in growing cane, and by charging to surplus reserves totaling \$3,033,100.59, these accounts now represent sound value.

We have now amply provided for all possible losses resulting from conditions which prevailed in the industry during 1920 and 1921, after which Surplus Account stands at \$13,282,195.12.

As mentioned in our report of 1923, your company has proceeded with the erection of a sugar factory on the Velasco lands. A large part of the machinery installed has been obtained by dismantling certain other mills of the Corporation located in the western part of the Island which had not been operating for the past few seasons. Velasco mill will commence operations during the 1924/1925 crop, and will be modern and efficient, with a capacity of 275,000 bags, and should be capable of producing sugar as economically as any mill in Cuba. With the completion of this mill, your company will have a grinding capacity in the East of approximately 3,000,000 bags.

It is estimated it will require approximately \$1,200,000 to complete the Velasco mill. There are no plans for any further large development.

There has been a decided improvement in the manufacturing efficiency of your mills during the past year, the average losses in manufacturing being 1.99%, as against 2.19% for the previous year, and 2.34% for the 1921/1922 crop.

REVIEW OF THE SUGAR SITUATION

As indicated in our last annual report, there was no carry-over in to 1924 of 1922/23 crop sugar. From present indications all Cuban stocks will again have moved into consumption before the close of the year, so that there should be no carry-over of sugars of the past crop into 1925. The 1923/24 world sugar crop was the greatest ever harvested, but the fact remains that it will be absorbed.

In the marketing of the 1923/24 crop, wide price fluctuations were encountered. The high price of 5½c c. & f. was reached in February. A declining market followed, which carried prices down to the low mark of 3c c. & f. in June, from which the market recovered to 4¼c c. & f. at the close of the fiscal year. This wide range of price seems unjustified by corresponding changes in conditions during the period, but was probably caused in part by failure to realize the easy absorption of world crops during the year.

Sugar is a world commodity, but Cuba is such an important factor in its production that prevailing methods of marketing the output of Cuba contribute to no small extent to these great price variations. Owing in part to the system of paying for cane purchased from Colonos during every fortnight on the basis of the average sales prices for sugar during that fortnight, it is imperative that the company should market more than half of its output during the four or five months of production. If this is not done, the company is in effect taking the risk as to the market trend during the closing six months of the calendar year, a course which has no justification in legitimate marketing procedure. At present a very large proportion of the Cuban crop is thus offered for sale during the actual months of production. Before the war, even more rapid selling was customary, in great part compelled by the financial inability of planters to withhold their sugars and await more favorable prices during the months of largest consumption.

While the war was in progress, governmental regulations resulted in a more even sale of the crop over ten to twelve months of the year. Cuba, despite improved economic conditions, is now inclined to revert to pre-war methods of merchandising its sugars.

It would make for more orderly marketing of the crop if methods of settlement could be changed so that the payment to the Cuban Colonos would be based on the average

market price of the season and not restricted to the price during the actual months of production and such a change would prove of lasting benefit to producer and Colonos alike.

The 1924/25 world crop estimate of cane and beet sugar of Willett & Gray and other authorities, is now placed at 21,700,000 tons. While this denotes an increase of 2,000,000 tons over 1923/24, everything indicates that this crop like its predecessors will be fully absorbed during the calendar year 1925.

The world war greatly curtailed production in Europe, and the countries affected are only now in a position to restore their industries to a pre-war basis. This is the cause of the Continental increase of production. The counterbalancing factor, too often lost sight of, is that consumption suffered even to a greater extent than did production. World consumption in 1904 was 11,500,000 tons, which had increased in 1914 to 18,000,000 tons; on that basis of increase a world consumption of 25,000,000 tons would now have been reached but for the economic conditions prevailing during and after the great war.

Increased production is necessarily slow. Consumption, on the other hand is, to a great extent limited only by supply and by the ability to purchase: with world conditions rapidly on the mend, consumption in a comparatively short time may well make up for years of enforced abstinence, and world consumption may attain the figures which natural growth of population and the increasing uses of sugar would indicate as possible. It may well be that the promise of increase for the coming year will not prove in excess of world requirements.

The tariff on Cuban sugars remains at 1.76c per pound, and while the report of the Tariff Commission is before the President for consideration, it is impossible to predict what action, if any, he will take in exercising the powers vested in him by the flexible provisions of the Tariff Act.

It is a pleasure to acknowledge the loyal co-operation of all officers and employees during the year.

Respectfully submitted,

By order of the Board of Directors,

W. E. OGILVIE,
President.

CUBA CANE SUGAR CORPORATION AND EASTERN CUBA SUGAR CORPORATION
COMPARATIVE CONSOLIDATED BALANCE SHEET—SEPTEMBER 30, 1924

	ASSETS	
	September 30, 1924	September 30, 1923
PROPERTIES, PLANTS AND EQUIPMENT.....	\$99,076,976.96	\$96,229,030.94
Less reserves for depreciation and obsolescence.....	18,500,000.00	15,250,000.00
INVESTMENTS.....	\$80,576,976.96 69,000.00	\$80,979,030.94 263,700.00
CURRENT ASSETS, ADVANCES TO COLONOS, GROWING CANE AND PREPAID EXPENSES CROP 1924/25:		
Cash in banks and on hand..	\$1,961,662.72	\$1,159,592.03
Refiners' acceptances (since collected).....	1,517,560.51	2,137,154.39
Due for sugars sold, at net sales price.....	3,443,939.35	3,977,642.42
Sugars on hand, at net market price.....	1,118,910.11	282,042.31
Accounts and bills receivable, less reserve.....	1,298,392.65	1,864,907.29
Advances to Colonos, less reserve.....	8,897,179.32	7,519,487.47
Advances to stores and sundry advances.....	111,154.72	94,603.56

ASSETS—Continued

	September 30, 1924	September 30, 1923
Materials and supplies, less reserve.....	\$3,555,624.84	\$3,305,020.45
Growing cane, less reserve..	972,336.39	974,988.26
Prepaid expenses—next crop	827,689.34	913,931.89
	\$23,704,449.95	\$22,229,370.07
MORTGAGES RECEIVABLE AND CASH PAID ON OPTIONS TO PURCHASE LANDS, less reserve.....	785,545.47	1,099,121.12
CASH AND U. S. TREASURY NOTES:		
For redemption of liens and censos, per contra.....	317,457.79	481,288.00
DEFERRED CHARGES:		
Insurance, rent, taxes, etc., paid in advance.....	\$784,120.53	\$505,819.74
Discount and expenses:		
In connection with issue of Ten Year Convertible Debenture Bonds due 1930, less proportion written off.....	652,064.22	776,266.86
In connection with issue of Fifteen Year 7½% (closed) Mortgage Sinking Fund Gold Bonds of Eastern Cuba Sugar Corporation, maturing 1937, less proportion written off.....	430,555.50	463,888.86
	1,866,740.25	1,745,975.46
	\$107,320,170.42	\$106,798,485.59

NOTE—The entire issue of the capital stock of the Eastern Cuba Sugar Corporation, viz., 48,000 shares of \$100.00 each, par value, is owned by the Cuba Cane Sugar Corporation.

LIABILITIES

	September 30, 1924	September 30, 1923
FUNDED DEBT:		
Ten Year Convertible Debenture Bonds of the Cuba Cane Sugar Corporation, due 1930:		
7% bonds.....	\$7,448,900.00	\$7,448,900.00
8% bonds.....	17,551,100.00	17,551,100.00
Fifteen Year 7½% (closed) Mortgage Sinking Fund Gold Bonds of the Eastern Cuba Sugar Corporation, due 1937.....	10,000,000.00	10,000,000.00
First Mortgage Bonds of the Violet Sugar Company, payable in annual instalments, to 1935.....	622,000.00	679,000.00
	\$35,622,000.00	\$35,679,000.00
MORTGAGES AND DEFERRED INSTALMENTS ON LAND PURCHASES.....	354,037.35	452,964.11
CURRENT LIABILITIES:		
Bank loans.....	None	\$3,000,000.00
Trade bills and notes payable	None	241,844.01
Accounts payable and accrued charges.....	\$2,606,382.41	1,569,663.46
Accrued interest on bonds..	554,762.75	555,760.26
	3,161,145.16	5,367,267.73

LIABILITIES—Continued

	September 30, 1924	September 30, 1923
LIENS AND CENSOS ON PROPERTIES: (See Item of Cash and U. S. Treasury Notes, per contra)	\$317,457.79	\$481,288.00
STATED CAPITAL:		
Cuba Cane Sugar Corporation:		
500,000 shares 7% Cumulative Preferred Stock, par value \$100.00 each..	\$50,000,000.00	\$50,000,000.00
500,000 shares of Common Stock without nominal or par value.....	4,583,335.00	4,583,335.00
	54,583,335.00	54,583,335.00
(Out of the authorized issue of 1,600,000 common shares, there are reserved unissued shares sufficient for the conversion of the Convertible Debenture Bonds of the Cuba Cane Sugar Corporation and the exchange of the bonds of the Eastern Cuba Sugar Corporation.)		
SURPLUS ACCOUNT:		
Balance.....	13,282,195.12	10,234,630.75
Note—Dividends on the Cumulative Convertible Preferred Stock have been declared and paid to April 1, 1921.		
	<u>\$107,320,170.42</u>	<u>\$106,798,485.59</u>

CUBA CANE SUGAR CORPORATION AND EASTERN CUBA SUGAR CORPORATION
COMPARATIVE CONSOLIDATED PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED SEPTEMBER 30, 1924

	September 30, 1924	September 30, 1923
OPERATING PROFIT FOR YEAR.....	\$12,511,718.64	\$12,608,122.74
Deduct:		
Interest on 10 Year Convertible Debenture Bonds...	\$1,925,511.00	\$1,925,511.00
Interest on 15 Year (Closed) Mortgage Sinking Fund Gold Bonds	750,000.00	750,000.00
Miscellaneous Interest paid (net).	None	257,779.58
	<u>\$2,675,511.00</u>	
Less:		
Miscellaneous interest and other income received..	295,931.38	\$2,379,579.62
		None
Taxes paid during year	20,712.06	61,628.52
Miscellaneous expenses.....	None	26,926.97
Reserve for unadjusted claims	400,000.00	250,000.00
	<u>2,800,291.68</u>	<u>3,271,846.07</u>
BALANCE, NET PROFIT FOR YEAR, CARRIED TO SURPLUS ACCOUNT....	<u>\$9,711,426.96</u>	<u>\$9,336,276.67</u>

COMPARATIVE CONSOLIDATED SURPLUS ACCOUNT SEPTEMBER 30, 1924

	September 30, 1924	September 30, 1923
BALANCE AT BEGINNING OF YEAR.....	\$10,234,630.75	\$3,757,209.14
Add:		
Net profit for year, as per profit and loss account.....	9,711,426.96	9,336,276.67
	<u>\$19,946,057.71</u>	<u>\$13,093,485.81</u>
Deduct:		
Reserve for depreciation.....	\$1,750,000.00	\$1,750,000.00
Additional taxes and other expenses, 1922-1923.....	380,762.00	None
Loss on sale of property, etc.....	None	358,855.06
Other reserves:		
Materials inventory.....	\$258,100.59	None
Amortization growing cane..	275,000.00	None
Doubtful colonos and other accounts.....	2,500,000.00	750,000.00
	<u>3,033,100.59</u>	
Reserve for dismantling and obsolescence of plants.....	1,500,000.00	None
	<u>6,663,862.59</u>	<u>2,858,855.06</u>
BALANCE AT CLOSE OF YEAR, AS PER BALANCE SHEET...	<u>\$13,282,195.12</u>	<u>\$10,234,630.75</u>

COMPARATIVE OPERATING STATEMENT—SEPTEMBER 30, 1924

	Fiscal Year Ended September 30, 1924		Fiscal Year Ended September 30, 1923	
Production—Bags	3,683,291		3,284,73	
OPERATING INCOME:		Per Bag		Per Bag
Sugar sales.....	\$53,424,440.82	\$14.505	\$50,411,096.32	\$15.347
Molasses sales.....	1,438,034.06	.390	168,692.80	.051
Other earnings.....	230,694.35	.063	251,612.52	.077
Total operating income.....	<u>\$55,093,169.23</u>	<u>\$14.958</u>	<u>\$50,831,401.64</u>	<u>\$15.475</u>
OPERATING EXPENSES:				
Cost of cane.....	\$29,436,369.81	\$7.992	\$26,888,109.62	\$8.186
Dead season (salaries and wages, materials and supplies, repairs and renewals)....	3,804,974.69	1.033	2,447,408.46	.745
Crop expenses (salaries and wages, materials and supplies, fuel, maintenance, administration—Cuba and United States)	4,526,015.25	1.229	4,437,471.46	1.351
Fiscal year charges (general insurance, Cuban taxes on sugar, Cuban taxes on real estate, etc.).....	856,289.18	.232	922,558.63	.281
Sugar expenses (sugar bags and packing, sugar inland railroad freights, sugar shipping expenses, sugar insurance, selling and landing expenses).....	3,957,801.66	1.075	3,527,730.73	1.074
Total operating expenses F. O. B.....	<u>\$42,581,450.59</u>	<u>\$11.561</u>	<u>\$38,223,278.90</u>	<u>\$11.637</u>
OPERATING PROFIT FOR THE FISCAL YEAR...	<u>\$12,511,718.64</u>	<u>\$3.397</u>	<u>\$12,608,122.74</u>	<u>\$3.838</u>

COMPARATIVE STATISTICAL INFORMATION

FOR CROPS 1918-19 TO 1923-24

CANE GROUND

The following tabulation compares the cane ground at your mills during the past six years:

	WESTERN ESTATES		EASTERN ESTATES		TOTAL	
	Arrobas	Tons	Arrobas	Tons	Arrobas	Tons
1918-19.....	307,329,091	3,430,012	194,267,464	2,168,164	501,596,555	5,598,176
1919-20.....	256,341,250	2,860,951	186,678,568	2,083,466	443,019,818	4,944,417
1920-21.....	282,402,153	3,151,810	186,983,157	2,086,866	469,385,310	5,238,676
1921-22.....	175,904,543	1,963,220	189,773,492	2,118,008	365,678,035	4,081,228
1922-23.....	141,593,087	1,580,280	247,584,208	2,763,217	389,177,295	4,343,497
1923-24.....	164,820,772	1,839,518	246,063,556	2,746,245	410,884,328	4,585,763

SUCROSE IN CANE

The average percentage of sucrose at the plantations of your Corporation for the six years, was as follows:

1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
13.02%	12.95%	12.80%	13.75%	12.74%	13.21%

LOSSES IN MANUFACTURE

The average factory efficiency is reflected in the following comparison of losses in manufacturing:

1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
2.32%	2.37%	2.23%	2.34%	2.19%	1.99%

YIELD OF CENTRIFUGALS

The fluctuations in yield of centrifugal sugars, reflects correspondingly the changes in sucrose content, as indicated in the following comparison:

1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
11.15%	11.02%	11.01%	11.89%	11.00%	11.69%

COMPARATIVE RECEIPTS PER POUND OF SUGAR

Following our previous annual reports, for the purpose of comparing the F. O. B. price per pound of sugar manufactured, obtained during the last six crops, the proceeds from "Molasses" and "Other Earnings" are included in the following:

1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
5.398c	10.345c	3.891c	2.276c	4.754c	4.596c

COST PER POUND OF PRODUCTION

The average cost of production, on an F. O. B. basis, per pound of sugar manufactured at your factories, including the cost of cane, was as follows:

1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
4.606c	8.523c	4.355c	1.945c	3.575c	3.552c

COST PER POUND OF MANUFACTURING AND DELIVERING

The cost per pound of manufacturing and delivering the sugars on board steamers, including all general expenses in New York and Havana but *excluding the cost of cane*, compared with the previous five years, is as below. Cost of cane, fluctuating as it does, with the price of sugar, and being thus beyond the control of the management, these figures are the real test of operating efficiency:

1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
1.555c	1.940c	1.943c	0.946c	1.060c	1.097c

OPERATING PROFITS PER POUND OF SUGAR

The Operating Profits per pound for the six years are as follows:

	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
Receipts.....	5.398%	10.345c	3.891c	2.276c	4.754c	4.596c
Production cost.....	4.606	8.523	4.355	1.945	3.575	3.552
Operating profit.....	0.792c	1.822c	Loss .464c	0.331c	1.179c	1.044c

COMPARISON OF CROPS MADE BY YOUR COMPANY

The production for the past six years has been divided between the Western and Eastern mills as follows:

	WESTERN		EASTERN		TOTAL	
	Bags	Tons	Bags	Tons	Bags	Tons
1918-19.....	2,653,630	or 382,783	1,655,569	or 241,318	4,319,199	or 624,101
1919-20.....	2,130,519	" 308,570	1,633,396	" 236,584	3,763,915	" 545,154
1920-21.....	2,367,614	" 343,546	1,610,488	" 233,220	3,978,102	" 576,766
1921-22.....	1,585,003	" 227,744	1,794,448	" 257,259	3,379,451	" 485,003
1922-23.....	1,245,506	" 180,961	2,039,225	" 296,416	3,284,731	" 477,377
1923-24.....	1,459,721	" 212,101	2,223,570	" 323,091	3,683,291	" 535,192

PRODUCTION OF THE EASTERN MILLS IN DETAIL

The following table shows the production of each of the Eastern mills as follows during the six years:

	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
Moron.....	524,940	611,031	580,979	584,104	600,833	744,179
Stewart.....	506,494	445,784	290,763	379,900	439,484	387,335
Jagueyal.....	353,168	371,609	349,087	303,890	302,342	304,697
Lugareno.....	280,967	204,972	234,014	256,774	273,050	278,410
Violeta.....	.....	.....	155,645	269,780	423,516	508,949
	1,665,569	1,633,396	1,610,488	1,794,448	2,039,225	2,223,570

LANDS

Your Corporation owns in fee 13,163 caballerias (438,762 acres) of land and holds under lease 9,391 caballerias (313,030 acres) of land, many of these leases being for long periods. The total lands owned and leased therefore are 22,554 caballerias (751,792 acres).

RAILROADS

Your Corporation now owns and operates for the transportation of its products and supplies, 1,440 kilometers (895 miles) of railroad, of which 1,154 kilometers (717 miles) are standard gauge and 286 kilometers (178 miles) are narrow gauge, together with equipment consisting of 151 locomotives, of which 115 are standard gauge and 36 narrow gauge, and 4,072 cane and other cars, of which 2,983 are standard gauge and 1,089 narrow gauge.

STOCKHOLDERS

The number of stockholders of record of your Company at the close of the last six fiscal years is as follows:

	1919	1920	1921	1922	1923	1924
Holders of Preferred Stock.....	4,880	5,755	6,246	6,312	5,394	4,900
Holders of Common Stock.....	2,584	2,204	4,164	5,565	4,904	4,031
	7,464	7,959	10,410	11,877	10,298	8,931

Return of Cuban Minister

Dr. Cosme de la Torriente, Cuban Minister to the United States, has returned to Washington from Geneva, where he has been attending session of the League of Nations.

Average Cuban Price

Figures compiled by the Secretary of Agriculture, Labor and Commerce of Cuba, indicate that Cuba averaged 4.90 cents f. o. b. for her 1923 sugar crop, compared with 2.80 cents the previous year.

Cuban Commercial Matters

Decreased Commercial Activity in Cuba

Business activity in Cuba, especially during recent weeks, has been affected by the intense political campaign between the rival candidates for the presidency. The retarding influence of the political agitation has been augmented by labor disturbances involving strikes in the sugar mills. The frequent rains and the cyclone, which for a time threatened the city of Habana and, on October 19, passed through the Province of Pinar del Rio, with damaging effects, have contributed to sluggishness in commercial lines. Political unrest has been the outstanding drawback of business for a year, and this has been given by some debtors as an excuse for holding up payments. While collections were reported as somewhat improved after the termination of the railroad strike in June, the near approach of the elections has been attended with increased difficulty in this field.

Most observers in Cuba agree that the fundamental conditions of the island are sound and that wide prosperity should be experienced as soon as the fears occasioned by political matters are relieved. It is hoped that with the election of a new President on November 1, conditions may assume a normal aspect and Cuba enjoy the commercial activity which the prospects of a favorable sugar crop would give reason to expect.

LABOR SITUATION UNSETTLED

Labor difficulties in the sugar mills, accompanied by strikes in a number of important centrals, have been the source of some anxiety to Cuban sugar interests for the past two months. The difficulties began with the walkout of employees of Central Moron and gradually spread to other mills, and on October 22 the workers of the Cuba Northern Railroad went on a general strike, and for a number of days movement of trains on the railroad was suspended. During the last days of October representatives of the strikers and the Cuba Cane Sugar Corporation met and reached an agreement on October 28, settling the difficulties. This settlement, however, covered only the mills of the one company, and workmen at several

others are still out. Shortly after this settlement, the workmen of the Cuba Northern Railroad terminated their strike. Scattered difficulties between workmen and individual mills may continue, but those in touch with sugar interests are optimistic in the expectation that these difficulties will be solved.

TOBACCO CROP DAMAGED BY CYCLONE

The cyclone which passed through Pinar del Rio Province on October 19 devastated many tobacco plantations and resulted in the destruction of a number of warehouses and other tobacco property, as well as the homes of growers, to such an extent that relief funds are being collected in Habana and other parts of the island and the Government has appropriated \$30,000 for assistance to sufferers. Aside from the actual damage caused by the cyclone, reports from the tobacco districts of the Province indicate that a considerable delay will result in making plantings. The prevalence of rains during the fall has already delayed the plantings and has caused some rotting of seedlings and, with the additional setback occasioned by the cyclone, it has been predicted that the crop in this section will be retarded from one to two months.

Since the first of the year 479,886 bales of tobacco have arrived in the central market in Habana, and while statistics on present stocks are lacking, they are understood to be comparatively large. Exports of tobacco leaf for the year up to October 15 showed a decrease of over 1,200,000 kilos, as compared with exports in the corresponding period of 1923. In like manner, a decrease of some 7,800,000 in the exportation of cigars is indicated for the same period, although this tendency is reversed during the first half of October, when cigars exported exceeded by more than 2,000,000 exportations during the first half of October, 1923. Both cigarettes and "picadura" show decreasing exports during the present year as compared with the past. During September the average values of tobacco exported were as follows: Tobacco leaf, \$2.03 per kilo; stemmed tobacco, \$2.37 per kilo, these values being the lowest for the year to date, with the exception of the month of January. (All figures from the trade journal *El Tabaco*.)

SUGAR CROP OUTLOOK FAVORABLE

Sugar prices during the first half of October show an increase over those of September. According to Mr. Himely's statistics, the stocks of sugars of the past crop in the island on October 25 were 184,936 long tons, compared with stocks of 133,923 and 227,250 long tons, respectively, for the corresponding dates of 1923 and 1922. Exportations of the past crop, up to October 25, were reported at 3,706,061 long tons, as compared with 3,338,471 and 3,646,623 long tons for corresponding dates of 1923 and 1922, respectively. Estimates of the coming crop have not yet been issued, but conditions are reported to be favorable.

GOVERNMENT REVENUES

Cuban treasury receipts for September, amounting to \$6,488,104, show a decrease of some \$500,000—approximately 7 per cent—from those of August. This reduction is seasonal but a little greater than that of last year. The \$6,488,104 represents collections exclusive of moneys received for special funds, which, if included, make the total September collections \$7,091,008. While they are below those of the preceding months they exceed the budget estimates.

Import duties collected show the same trend as indicated in the total collections for all sources, namely, a decrease in September as compared with August but an increase as compared with September, 1923. Collections under this head for September, 1924, amounted to \$3,922,063, as compared with \$3,998,120 in August, 1924, and \$3,451,556 in September, 1923.—*Trade Commissioner C. A. Livengood, Havana.*

Cuba as Market for American Motor Vehicles

According to reports of the Department of Commerce, Cuba is at present the second largest market in Latin America for motor vehicles from the United States. In 1913 Cuba took 297 passenger cars, 19 trucks, and 80 motorcycles; in 1921 the figures for these groups were 1,692, 283, and 60, respectively; in 1922, 1,689, 303, and 22; in 1923, 6,003, 811, and 54; and during the first nine months of this year, 6,409, 1,215, and 41.

Registration of Familiar Trade-Marks

The following trade-marks have been registered in Cuba:

American Ace—for hosiery; by German Rodriguez.

Baley—for all classes of paints in powder, paste, or liquid form; by F. Martel.

Canc-car—same as above.

Metacacme—same as above.

Darling—for hats, caps, etc.; by Aquilino Perez, S. en C.

Majestic—same as above.

Globe Hats—for hose, caps, etc.; by Diaz Gonzales y Compania, S. en C.

Yellow 8186—for a preparation on a basis of egg yolk for coloring food products; by Emilie Lecours.

Murite—for various animal, vegetable and mineral substances; applied for by Caferata y Co. (Ltd.).

Neverrip—for various merchandise; by Antonio Ribolo.

New Store for Havana

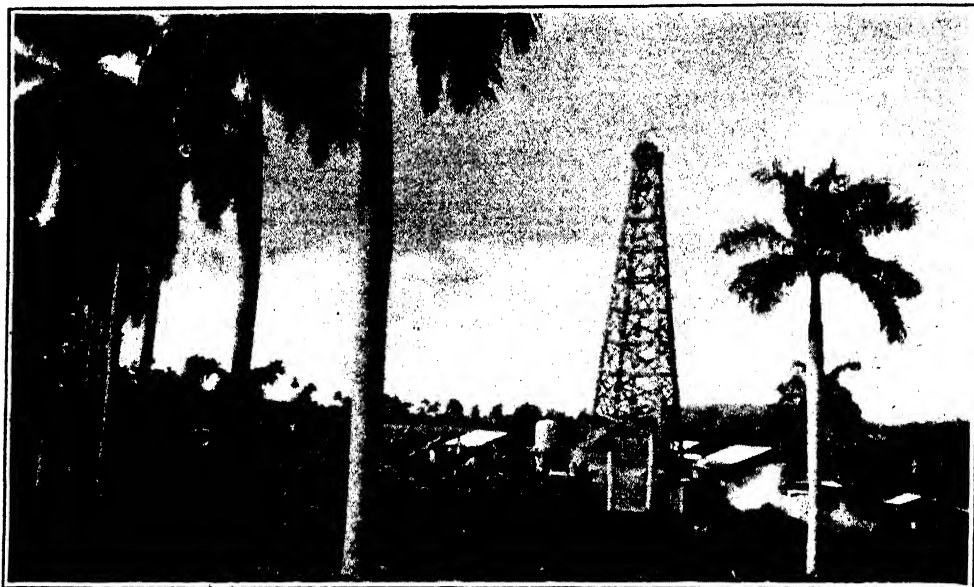
It is reported that F. W. Woolworth is planning to open a store in Havana, which will be handled from the Atlanta department. This is the first time the Woolworth Company has gone off the American continent with a location, its present stores being all located in the United States and Canada. A subsidiary company operates stores in the British Isles.

Poultry Show to be Held in Habana in February

Plans have been completed for the International Exposition of Aviculture of Cuba, according to press reports to be held the latter part of February, the exact date not having been determined as yet. It is planned to accommodate exhibitors from the United States and other countries as well as those from Cuba. The exposition will be conducted along the lines of like exhibits in this country. Rules of the exposition and a list of prizes will be published shortly.

Retail Dealers' Bank

On July 12, 1924, the statutes for the founding of the "Banco de los Detallistas" were drawn up. The new bank, which has a capital of \$5,000,000, has incorporated with it the Banco Hispano Cubano, taking over all that bank's business and the building valued at \$350,000.



Oil Well at Bejucal

History of the Development of the Oil Tract, Situated at Bejucal Approximately Twenty-five Miles Southwest of Havana, Cuba

Theoretically, experts have long contended that oil in large quantities was present in the Island of Cuba, due to the similarity of the geological structure to other localities where oil has been found.

Although this contention has been substantiated by the fact that some 200,000 barrels of oil have been produced there, previous drilling operations have not produced oil in volume because they have been undertaken in a hit or miss manner and without proper scientific research work by qualified geologists in advance of actual drilling.

Oil in Cuba, if produced in commercial quantities, would have a greater value than in almost any present known locality, due to its higher market value, approximately \$3.25 per barrel, as against \$1.25 for mid-continent, based on economical transportation. The low cost of freight by water to the Eastern American seaboard, with its great refinery centres, the lesser expense to Europe, together with a daily consumption in Cuba of more than 20,000 barrels, insures a ready and profitable market for the output.

The Cuban Petroleum Syndicate owns oil and gas leases on approximately 4,200 acres of land, together with a one-half interest in an additional tract of 217 acres, on which a well is now being drilled, and a half-interest in this well. The entire property is situated at Bejucal, Havana Province, Cuba, some 20 miles southwest of the city of Havana.

Prior to leasing, the land was thoroughly examined, the prospective location of the oil was thoroughly examined geologically by experts who carefully and scientifically plotted the tract to be developed.

Mr. C. A. Owens, who has had thorough and successful experience in this industry, and especially in the development of oil fields, first secured the necessary rights and brought the matter to the attention of one of the large oil producing companies. After further and exhaustive personal tests on this property by the best geologists obtainable, who recommended the development of the tract by drilling operations, the company verified all reports and data obtained by reports from other authorities, including

those of Columbia University. Being convinced from all available scientific sources that the possibilities of the location warranted it, this company, with an enviable record of oil production, authorized the drilling of the present well.

A crew of expert drillers were brought from Oklahoma, for the work. The drilling was done under the direct supervision of Mr. Owens, and Mr. Rice and two well-known geologists, Mr. P. W. K. Sweet and William T. Boulton. A careful record of the drilling operation was kept, and as each successive strata was bored, the results were carefully checked by these and other geologists.

The well, which was started in September, 1923, suffered many delays that are usually attendant in pioneer work. It has now reached 2,215 feet, and is now showing gas and oil.

Each successive step has been carefully checked and the geologists are firmly of the opinion that an oil well of considerable volume will be brought in.

Sugar Project in Krawang

Advices have been received from Holland to the effect that the Handelsvereniging Amsterdam, which is one of the largest sugar concerns in Java, has withdrawn its application for a sugar concession in the Krawang district of Java, because of unwillingness to participate in the cost of improving the irrigation system. The Pamenockan and Tjaiesemland concern has applied for the concession and announces its readiness to bear its share of costs of development. American capital, it is reported, will participate in the enterprise if this company obtains the concession.

The Krawang district already has three sugar factories with an area in cane of 5,000 to 6,000 acres. The factories' share in the expense of constructing irrigation works has been fixed at 300 florins per *bakoe*, or about \$66 per acre. The total cost of the work will be 35,000,000 florins (about \$13,500,000). It is expected that water will be turned into the ditches in about a year and a half.

Santa Cecilia Sugar Co.'s Annual Report

Operations of the Santa Cecilia Sugar Company, owning Central Santa Cecilia in Oriente province, Cuba, for the year ending July 31, 1924, show a deficit of \$195,868 after allowance for depreciation and interest charges, according to the annual report made public recently. This was a slightly greater loss than the company made in 1922-23, when the deficit was \$172,271, but is lower than the 1921-22 loss of \$313,321.

COMPARATIVE INCOME ACCOUNT

The income account shows the following figures for the year, in comparison with the year preceding:

	1924	1923
Gross revenue.....	\$615,338	\$617,795
Expenses.....	596,097	532,864
Net revenue.....	\$ 19,241	\$ 84,931
Other income.....	34,642	—
Total income.....	\$ 53,883	\$ 84,931
Depreciation.....	121,648	119,588
Interest.....	128,103	138,074
Deficit.....	\$195,868	\$172,731

The balance sheet of July 31, 1924, shows a total deficit balance of \$1,396,380, compared with \$1,032,929, the year preceding. Notes and accounts payable amounted to \$930,936, against which current assets in cash, material and supplies, unsold sugar, and accounts receivable amounted to \$218,588. The company is capitalized for \$2,750,000 and its funded debt on July 31 last was \$1,350,000.

The sugar production of Central Santa Cecilia in the past grinding season was 42,532 bags, against 40,077 bags in 1922-23. The continued drouth in the Guantanamo valley during the past year made any increase in production impossible, President C. B. Goodrich informs the stockholders, but during the present growing season the plantation has received a plentiful supply of seasonable rains, and the fields show a good growth of cane. The company last year replanted 841 acres, which will come into production for the 1924-25 crop, and is replanting 1,054 acres from which cane will be available for 1925-26. "A very satisfactory increase in production for the coming crop, therefore, seems assured," the report says, "while a return to normal output for the harvest of 1926 is reasonably expected."

Traffic Receipts of Cuban Railroads

Earnings of Havana Central Railroad Company

<i>Weekly Receipts:</i>	1924	1923
Week ending October 25.....	£11,865	£11,916
Week ending November 1.....	12,384	12,201
Week ending November 8.....	12,655	12,273
Week ending November 15.....	12,985	12,260

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1924	1923
Week ending October 25.....	£57,366	£53,204
Week ending November 1.....	57,689	53,780
Week ending November 8.....	60,625	58,274
Week ending November 15.....	64,210	56,318

Havana Electric Railway, Light & Power Company

	MONTH OF SEPTEMBER		9 MONTHS TO SEPTEMBER 30	
	1924	1923	1924	1923
Operating revenues.....	\$1,210,271	\$1,111,305	\$10,597,074	\$9,929,698
Operating expenses and taxes.....	641,105	533,743	5,472,900	4,758,348
Net revenues.....	569,166	577,562	5,124,174	5,171,350
Other income.....	29,952	20,655	252,165	205,442
Total income.....	599,118	598,217	5,376,339	5,376,792
Interest charges.....	89,945	93,243	819,189	839,396
INCOME, after deducting taxes and interest charges.....	509,173	504,974	4,557,150	4,537,396
Sinking fund requirements.....	26,591	25,579	236,648	225,884
Balance of income.....	482,582	479,395	4,320,502	4,311,512

The Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	94	94½
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	95	97
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	97	98
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	86¼	87
Havana City First Mortgage 6% Bonds.....	100	110
Havana City Second Mortgage 6% Bonds.....	85	100
Cuba Railroad Preferred Stock.....	80	85
Cuba Railroad First Mortgage 5% Bonds of 1952.....	84	84½
Cuba Company 6% Debenture Bonds.....	90	.....
Havana Electric Railway Co. Consolidated Mortgage 5% Bonds.....	94½	95¼
Havana Electric Railway, Light & Power Co. Preferred Stock.....	102	102¾
Havana Electric Railway, Light & Power Co. Common Stock.....	89½	90½
Cuban American Sugar Co. Preferred Stock.....	97	97½
Cuban American Sugar Co. Common Stock.....	29½	29½
Guantanamo Sugar Co. Stock.....	6¾	7

Sugar Industry

Control of the National by the American Sugar Refining Company

Definite confirmation has been received from Earl D. Babst, President of the American Sugar Refining Company, of recent reports of a merger of important refining interests, in connection with which nearly all the refining companies located in and near New York were mentioned. In the statement Mr. Babst said:

"For some time this company has had under consideration plans for restoring its refining position in New York Harbor. For many years it has owned a quarter interest in the National Sugar Refining Company, and it is now discussing tentatively an offer for the property. The matter has not reached a point which warrants any further statement."

This was followed by a later statement as follows:

"At a special meeting of the board of directors the officers were authorized to complete the purchase of the property of the National Sugar Refining Company."

As stated by Mr. Babst, the American Sugar Refining Company owns approximately 25 per cent of the \$15,000,000 stock of the National. To increase its holdings to the extent necessary to acquire majority control would involve the purchase of approximately 30,000 shares additional, and it is understood that a tentative proposal has been made to large stockholders in the company for the purchase of the required number of shares at a price said to be in the neighborhood of \$110.

It is believed that the move to acquire control of the National is based on the fact that a smaller expenditure would be required to obtain a majority interest in that company than would be involved in the erection of a new refinery. On the basis mentioned above the necessary number of National shares could be bought for something over \$3,000,000, while the reconstruction of the American's Brooklyn refinery would cost from \$8,000,000 to \$10,000,000.

It is believed to be the policy of the American to extend its ownership of raw sugar properties in Cuba. As a result of the sale of its holdings of Great Western Sugar Company stock, the American has on hand about

\$8,000,000 cash. Acquisition of a controlling interest in the National not only would give the American the advantage of two New York refineries—one in Long Island City and the other at Yonkers—but would also put it in a position to increase its holdings of raw sugar properties in Cuba, if it so desired.

It is understood that the National has fared rather better than some of the other refining companies in its operations this year. During the early part of the year it is said to have accumulated profits of about \$1,500,000, the greater part of which was wiped out in the succeeding slump in raw sugar values which caused embarrassing losses to a number of other refiners. More recently the company has been earning money and it is believed that these earnings will about cover the 7 per cent dividend on its \$15,000,000 stock, which is all of one class. The company has a cash accumulation of about \$3,000,000 and has no bonded indebtedness.

A feature of the transaction that aroused much interest was the question of the effect that a change of ownership would have on the sales policy of the National. It is understood, however, that the purchase of control will not change the corporate entity of the National or involve any change, at least for the present, in its personnel or policy.

Russia to Increase Acreage

It is reported that owing to the increased consumption of sugar in Russia during the past year, the Russian Sugar Trust is making plans to provide for a larger domestic supply next year. The sugar-beet acreage will be increased to about 405,000 acres which will be 40 per cent more than this year's. Latest reports show that the output of the past year was between 450,000 and 460,000 long tons.

Sale of Sugar Mills

It is reported that the sons of Andres Gomez Mena have repurchased the sugar mills "Amistad" and "Gomez Mena."

Investigating Cuba's Sugar Cane Problems

Plans for co-operative work on problems of sugar cane production by the Tropical Plant Research Foundation and the sugar cane insect laboratory maintained at New Orleans by the Bureau of Entomology of the United States Department of Agriculture have been disclosed through the arrival at New Orleans of two representatives of the Research Foundation. The representatives in question, Entomologist D. I. Van Dine and Assistant Entomologist C. F. Stahl, are on their way to Cuba to inaugurate investigations into sugar cane problems, especially those connected with the mosaic disease and sugar cane insect pests. They are visiting New Orleans to complete arrangements for co-operative activities by the local laboratory.

The Tropical Plant Research Foundation is an organization formed under the auspices of the National Research Council and incorporated under the laws of the District of Columbia for scientific and similar purposes. It has no capital stock and is not conducted for financial profit, but to advance knowledge. In the particular work which it is undertaking in Cuba the Foundation is supported by the Cuban Sugar Club, an organization of Cuban sugar producers especially formed to advance the investigation and including in its membership representatives of the principal Cuban sugar mills.

The particular object and business of the Foundation is to promote research for the advancement of knowledge of the plants and crops of the tropics; to conduct investigations in plant pathology, entomology, plant breeding, botany and forestry, horticulture and agronomy, and to publish the results obtained; and to establish and maintain temporary or permanent stations and laboratories as may be necessary for these objects. In connection with the Cuban sugar cane work now undertaken one or more such field stations will be established in Cuba.

Some organization such as the Research Foundation has long been needed in the tropics, where government agricultural departments such as farmers in the United States have at their disposal are for the most part not in existence. Tropical agricul-

turists, especially Americans, have occasionally called on American investigators for assistance and advice, but while suggestions have been given where possible, it has been very difficult for a man hundreds of miles from the scene of operations to be of real assistance. The best advice that can usually be given under such conditions is that an expert be hired to investigate the problem in question.

This, it is pointed out, is where the Tropical Plant Research Foundation steps in to fill a need by supplying scientifically trained investigators—not for profit, but at the cost of the work done, such cost to be covered by the subscriptions of those benefited.

The Cuban sugar cane investigation is the first piece of work to be actually put under way by the Foundation, but a number of other projects dealing with tropical crops are under consideration, it is learned. The co-operation of the United States sugar cane insect laboratory in this undertaking has been authorized in the expectation that the results will be of benefit both to the laboratory and to the entomological service of the Foundation.

The solid scientific and practical backing of the Foundation is indicated by the list of its trustees and officials. The former include Professor L. R. Jones of the University of Wisconsin, Professor Robert A. Harper of Columbia University, Dr. William Crocker of the Thompson Institute for Plant Research, Professor S. C. Prescott of the Massachusetts Institute of Technology, V. M. Cutter of the United Fruit Company, H. C. Lakin of the Cuba Company, Major George P. Ahern, formerly Philippine Director of Forestry, and J. T. Crawley, formerly director of the sugar experiment stations in Cuba and Porto Rico. Dr. William A. Orton, formerly of the United States Department of Agriculture, is scientific director, and among the members of the staff of the Foundation are Dr. James A. Faris, pathologist; Dr. Marion N. Walker, assistant pathologist; and Dr. R. V. Allison, chemist and soil biologist, in addition to Messrs. Van Dine and Stahl.—*Facts about Sugar.*

The New Sugar Factory in Jamaica

The Jamaica correspondent of the *Louisiana Planter*, in a description of the enterprise for the erection of a sugar factory in Jamaica, says:—

The company now known as the Jamaica Sugar Estates, Limited, has made a start in this Island under the most favorable auspices. With a guaranteed loan of £115,000 from the Imperial Government under the Trade Facilities Act, and a grant in aid of capital expenditure by the local government, coupled with fertile lands, normal rainfall, an efficient management and capable staff, the wind may be said to have set fair on their embarkation on one of the most gigantic schemes that the sugar industry of the island has witnessed. The foundation for a 10,000-ton factory has already been laid, and the purchased cane lands run into some fourteen square miles.

A further advantage to the company is their arrangement entered into with the United Fruit Company for an exchange of cultivation rights over lands adapted to fruit and cane growing respectively, by which means the United Fruit Company will cultivate the Jamaica Sugar Estate lands which are adaptable to the cultivation of bananas, securing to this new company the advantage of maintaining the fertility of the soil by rotation crops. The three estates purchased by the Jamaica Sugar Estates, Ltd., lie close to those properties operated by the United Fruit Co., in the Parish of St. Thomas. As a further facility the United Fruit Co. will allow the Jamaica Sugar Estates to use their 30-inch gauge railway, with transportation rights, as well as rights to wharfage at their piers at Bowden and Port Mocaute.

The plant now being put down is for a 10,000-ton output, but capable of being enlarged to 20,000 tons. With the encouragement of the Imperial and Colonial Governments, the appointment of a capable manager, in Mr. Frank Garnett, who has vast experience in cane cultivation in the Tropics, it is felt that success is bound to be the result of this enterprise. The directors of this new venture are: The Right Hon. Lord Invernairn of Strathnairn (Chairman and Managing Director of William Beardmore & Co., Ltd.), Chairman; His Grace the Duke of Atholl, K.E., G.C.V.O., C.B., D.S.O.; Sir Frederick L. Macleod, K.B.E.; Commander

H. S. M. Harrison-Wallace, R.N. (retired); Mr. Charles Donaldson (Chairman of the Donaldson Line, Ltd.); Mr. J. B. Talbot-Crosbie (Managing Director of Duncan Stewart & Co., Ltd.); Mr. J. Reid Kerr (Managing Director of the Glebe Sugar Refining Co., Ltd.); Mr. Hugh McLean, sugar broker, and Mr. Frank Garnett.

ST. THOMAS PARISH ELATED AT BIG FACTORY

There are some long-headed men among the directors and they base their future profits—assuming sugar holds at £20 per ton—at £10 per ton on a 10,000-ton output, not taking into account the rebate given by preference. The people of St. Thomas, who have long waited to see the cane industry once more established in their parish, are naturally jubilant over the development of the Jamaica Sugar Estates, Ltd., and their hopes are now for the establishment of an oil-fuel base for ocean-going ships. The following is taken from the *Jamaica Times* on the subject of an oil base:—

"Those who have had the problem under review in the past have been led to the conclusion that the harbor has many natural advantages for the purpose named. First of all, it is close to the track of the ships making the Turks Island passage, between Cristobal, at the northern end of the Panama Canal, and the Atlantic. Oil is obtainable in Trinidad, another rich member of the British West Indies group, and could be loaded in tankers from the pipe lines, which are already in position off that island, for transport across the intervening 900 miles of the Caribbean. This is a development which has long been contemplated in Jamaica, and there is little doubt that the new company, from the proximity of its shore interests, would be in a favorable position to carry it out."—*Canada-West Indian Magazine*.

New Bank Opened in Cuba

The opening of the Banco Hispano-Cubano, an institution formed for the purpose of devoting special attention to the interests of retail dealers, was celebrated in Habana on October 8th. Of the authorized capital of \$5,000,000 it is reported that shares have already been issued in the amount of \$500,000.—(*Trade Commissioner C. A. Livengood, Habana.*)

Italy's Beet Sugar Crop Runs Short of Estimate

The beet slicing campaign in Italy gets under way in late July or during the first half in August. It is now far enough advanced to give a fairly reliable indication of the probable outcome of the season's operations. Results up to September 15th, it must be said, are most disappointing, at least when compared with the early estimates of production which will fall far short of realization.

In Italy, as in most other parts of Europe, the beet crop was late in getting started this year. Copious rainfall promoted the growth of the plants and caused them to partly overcome their early backwardness but not entirely. The fields showed a luxuriant growth of foliage and the roots were of good size, but as the factories got into operation it was found that the sucrose content was in many instances as much as three per cent inferior to last year. The reason generally attributed for this condition is lack of sunshine during the growing period, but it is probably in part due also to the fact that many farmers were growing beets for the first time this season and lacked experience in handling the crop.

Results thus far obtained are so disappointing that the opinion is expressed that the sugar output this season will be no larger than in 1923-24, or about 350,000 tons, notwithstanding the increase of between 30 and 40 per cent in acreage. Such views probably are unduly pessimistic, but it is evident that production cannot approach the earlier estimate of 460,000 tons and will hardly reach 400,000 tons.

Whatever the final outturn, Italy will scarcely be able to export sugar to any extent. The considerable shipments during August and the first half of September which, fortunately for the producers, commanded good prices, probably represent the limit of foreign business for this crop.

As far as the further development of the Italian sugar industry is concerned, there are indications that the beet acreage is more likely to shrink than to expand next year. No less than 12 new factories were constructed for operation this season and numerous other projects were under discussion last spring, but after the decline in the sugar prices few if any of them will be carried out.

The price that the factories can offer for beets probably will be lower next year, and at what may be called normal prices beet growing is not particularly remunerative in Italy.

For the sugar industry as a whole a production sufficient to supply home consumption is probably the best situation. Due to the relatively poor quality of the beets and the high cost of production, exports can hardly be profitable under ordinary conditions.

Argentine Mill Electrified

It is reported that the first application of electricity to rolls in a raw sugar factory in the Argentine Republic will be made by P. Costas, Bercetche & Mosoteguy in their San Martin mill at Tabacal. This is not the first installation of electric motive power in the Argentine industry; the San Martin plant is already electrified in other departments, but the mill required expansion and the owners decided to utilize the opportunity to extend the use of electricity to driving the rolls.

An extension to the present mill is to be erected and complete electrical equipment has been ordered from the General Electric Company, through the Argentine General Electric Company, agents of the International General Electric Company. Two 1,250-kilowatt, variable speed turbine generators have been specified, one of which will supply power to the motors driving the rolls; the other will be used as a spare, both for the roll drive and for auxiliary power. Seven 300-horsepower, variable speed induction motors have been ordered, six of which will be used regularly for driving the rolls while the seventh will be a spare. Other electrical equipment will include switchboard and control apparatus, together with a number of auxiliary motors.

An unusual feature of the installation is the adoption of a motor-driven governor adjuster. This will permit remote control of the frequency of the turbine from the roll room by adjusting the governor by means of push-button stations. The whole grinding operation is thus under the control of the operator in the roll room. A frequency meter on the same panel with the push-button station will enable the operator to ascertain at any time the speed at which the rolls are running.

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated October 21, 1924, and from that time until October 29th market continued on its unchanged basis of 4¼c c. & f. Shortly after this time we were commencing to receive estimates of new crops which exceeded materially the original estimates as published by us in our *Weekly Statistical Sugar Trade Journal* of October 30, 1924, the most important increases occurring in the European beet crops, although several of the Cane crops indicated improved outturns. This condition of affairs, together with the quiet demand for refined sugar, disturbed holders somewhat, particularly holders of full duty raws, such as Perus, and an accumulation of 10,000 tons of these sugars had an unfavorable effect on the market, as they were forced for sale. This resulted in a decline over a period of several days, until 3 11/16c c. & f. N. Y. Cuban basis was touched on November 7th. However, the statistical position, showing the very small raw stocks held by the refiners, as well as the rapidly decreasing supply left in Cuba (Porto Ricos being exhausted), commenced to exert itself and the market has slowly but steadily climbed upward until the present quotation of 4½c c. & f. was reached. In the meantime, the demand for refined was sufficient to absorb most of the refiners' purchases of raw sugars and, hence, the statistical position, as far as refiners' supplies are concerned, has not improved any and, furthermore, the supply left in Cuba is now very small. As there are indications that Cuba will not make an early start, this appears to aggravate the situation and it is not at all unlikely that there will be a further advance before new crop sugars can come to market in sufficient volume to relieve the situation.

During the period under review, the United Kingdom refiners have purchased daily Cane and Beet sugars at declining prices, the markets in the United Kingdom, of course, being affected more materially than this part of the world, as European beet crops come to harvest in September/October and this makes sugar available from the beet crops in quite large quantities during November and December. This accounts for the declining market in the United Kingdom, but the refiners in that country have continued their daily purchases, as mentioned above, at declining figures. They have purchased sugar from all countries of the globe for prompt and November shipments, except Cuba, and as far as the latter is concerned, they have purchased new crop Cubas and/or San Domingo sugars for February/March shipment at about the parity of 3c f. o. b. Cuba.

With reference to the increased crop estimates noted above, our latest calculation of the world's supply, based on present conditions, is 22,082,200 tons, compared with 19,698,888 tons previous campaign. The largest part of this increase occurred in the European beet crops, where there is an expected outturn of nearly 2,000,000 tons over the preceding crop. At the present time we are inclined to believe that some of these crops are being estimated at maximum figures and possibly there will be some adjustments, later on, as the yields are more closely ascertained.

An important development during the month has been the negotiations for the purchase of the National Sugar Refining Co. by the American Sugar Refining Co. It appears that a majority of the stockholders of the National are in favor of the purchase, but it is the desire of both companies that all the stockholders of the National should be willing to accept the new proposition. The option to buy is good until April 1, 1925.

As far as refined is concerned, the buyers of refined sugar have been influenced by the large increases in the new crops and have bought on a hand-to-mouth basis. This, while resulting in no heavy purchases, has caused a steady demand, and at the time when raws declined to 3 11/16c c. & f., there was an opportunity of purchasing refined sugars at 7.25c list basis, but as mentioned above, refiners' supplies were so small that a slightly increased demand, due to the improved raw market, caused a reaction to 7.40c basis.

The domestic beet crop is not out-turning quite as satisfactorily as at first expected, but in the meantime, the producers have been quite willing to sell at the seaboard basis of 7.00c, for territory from Buffalo-Pittsburgh westward to the Rocky Mountains. To this price of 7.00c has to be added the freight from the seaboard to the point of destination.

New York, N. Y., November 20, 1924.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 21 de octubre de 1924, y desde entonces hasta el 29 de octubre el mercado continuó bajo su base sin cambio de $4\frac{1}{4}$ c. costo y flete. Poco después de este período empezamos a recibir cálculos de las nuevas zafas que excedían materialmente los cálculos primitivos según publicados por nosotros en el Statistical Sugar Trade Journal semanal de octubre 30 de 1924, los aumentos más importantes teniendo lugar en las cosechas de azúcar de remolacha de Europa, aunque varias de las zafas de azúcar de caña indicaban mayor producción. Esto, junto con la poca demanda por el azúcar refinado, perturbó algo a los tenedores de azúcar, especialmente a los tenedores de azúcar crudo con todos los derechos, como azúcar del Perú, y una acumulación de 10,000 toneladas de estos azúcares, produjeron un efecto desfavorable en el mercado, pues se vieron obligados a vender. Esto dió por resultado una rebaja durante varios días, hasta que se llegó el 7 de noviembre a 3 11/16c. costo y flete N. Y. base de Cuba. Sin embargo, la posición estadística, mostrando las existencias tan pequeñas de azúcar crudo que tenían los refinadores, así como las existencias que quedaban en Cuba rápidamente en disminución (las de Puerto Rico habiéndose agotado), empezó a dejarse sentir y el mercado ha subido despacio pero con constancia hasta que se llegó a la actual cotización de $4\frac{1}{8}$ c. costo y flete. Entretanto, la demanda por azúcar refinado era suficiente para absorber la mayor parte de las compras de azúcar crudo hechas por los refinadores, y de aquí el que la posición estadística, en lo que concierne a las existencias de los refinadores, no haya mejorado en nada, y lo que es más, las existencias que quedan en Cuba son ahora muy pequeñas. Como hay indicios de que Cuba no empiece pronto sus faenas, esto parece empeorar la situación, y no será nada difícil que suban más los precios antes de que el azúcar de la nueva zafra pueda llegar al mercado en cantidad suficiente para aliviar la situación.

Durante el período bajo reseña los refinadores de la Gran Bretaña han comprado diariamente azúcares de caña y de remolacha a precios en baja, los mercados de la Gran Bretaña, por supuesto, siendo afectados más que en esta parte del mundo, pues la remolacha europea se cosecha en septiembre y octubre y esto hace que haya azúcar disponible de las cosechas de remolacha en grandes cantidades durante noviembre y diciembre. Esto es la causa de la baja en el mercado en la Gran Bretaña, pero los refinadores en ese país han continuado sus compras diarias a precios en baja, como dijimos anteriormente. Han comprado azúcar de todos los países del globo para embarques pronto y en noviembre, excepto de Cuba, y en lo que se refiere a esto último, han comprado azúcar de Cuba de la nueva zafra o azúcar de Santo Domingo para embarques de febrero y marzo a casi la par de 3c. libre a bordo Cuba.

Respecto a los cálculos en el aumento de la zafra indicados antes, nuestro último cálculo de las existencias del mundo, basado en la situación actual, es 22,082,200 toneladas, comparado con 19,698,888 toneladas en la anterior estación. La mayor parte de este aumento tuvo lugar en las cosechas de remolacha de Europa, donde se espera una producción de cerca de 2,000,000 toneladas más que la cosecha anterior. Al presente nos inclinamos a creer que algunas de estas cosechas están calculadas en su máximo y probablemente habrá algunas rectificaciones más tarde a medida que se puedan averiguar más de cerca las producciones.

Un acontecimiento importante durante el mes ha sido las negociaciones para la compra de la National Sugar Refining Company por la American Sugar Refining Company. Parece que una mayoría de los accionistas de la refinería National están en favor de la compra, pero lo que desean ambas compañías es que todos los accionistas de la National estén dispuestos a aceptar la nueva proposición. La opción para la compra es válida hasta el 1 de abril de 1925.

En cuanto se refiere al azúcar refinado, los compradores de este azúcar han sido influenciados por los grandes aumentos en las nuevas cosechas y han hecho compras en muy pequeñas cantidades. Esto, aunque no ha resultado en fuertes compras, ha causado una

demanda estable, y cuando los azúcares crudos bajaron a 3 11/16c. costo y flete hubo oportunidad de comprar azúcar refinado a 7.25c. base de lista, pero como se ha mencionado antes, las existencias de los refinadores eran tan pequeñas que un pequeño aumento en la demanda, debido a la mejoría en el mercado del azúcar crudo, causó una reacción a la base de 7.40c.

La cosecha de remolacha del país no está resultando tan satisfactoriamente como se esperaba en un principio, pero entretanto los productores han estado dispuestos a vender bajo la base de 7.00c. en el litoral marítimo para el territorio desde Buffalo-Pittsburgh al oeste hasta las Montañas Roquizas. A este precio de 7.00c. hay que agregar el costo de flete desde la costa marítima al punto de su destino.

Nueva York, noviembre 20 de 1924.

German Crop Statistics

Official statistics covering the past sugar year in Germany are now available and show that stocks at the end of the season were extremely low. At one time it was feared by the trade that there would be a large carry-over on account of the great decrease in domestic consumption, but this was prevented by the export of over 250,000 tons with the result that final stocks were 73,000 tons lower than at the close of the previous year. Detailed figures for the past two crops are as follows, statistics of sugar being in metric tons raw value:

	1923-24	1922-23
Beets worked.....	7,336,596	9,306,419
Yield of sugar, %.....	15.33	15.55
Sugar produced.....	1,146,892	1,455,079
Consumption.....	888,485	1,332,832
Imports.....	6,330	59,366
Exports.....	262,027	16,740
Stocks beginning year	157,543	96,243
Total production....	1,146,892	1,455,079
Total supply.....	1,304,435	1,551,322
Consumption, inland		
sugar.....	881,968	1,300,630
Export, inland sugar..	262,027	16,940
Stocks at end of year		
(calculated).....	160,440	233,752

Manati Declares Dividend

A dividend of 5 per cent, equivalent to \$5 a share, on the common stock has been declared for the year by the Manati Sugar Company. The dividend will be payable in four quarterly instalments of \$1.25 each, on December 1, 1924, and March 1, June 1, and September 1, 1925, to stock of record on November 18, February 14, May 15 and August 15. An advance dividend of the same amount was declared in November, 1923.

Philippine Sugar Exports

According to report from Warner, Barnes & Co., of Manila, sugar exports from the Philippine Islands during the first nine months of 1924, to September 30, amounted to 307,858 long tons, an increase of 87,944 tons over the figures for the corresponding period of 1923. The 1924 shipments were made up of 257,576 tons of centrifugal sugars and 50,282 tons of muscovados. The distribution of exports by countries of destination was as follows, in long tons:

To	1924	1923
U. S. Atlantic.....	223,645	117,430
U. S. Pacific.....	33,994	76,170
	257,639	193,600
China.....	41,862	12,228
Japan.....	8,357	14,086
Total.....	307,858	219,914

European Sugar Crop

Estimates of sugar-beet production received by the United States Department of Agriculture from six European countries which produce about one-fourth of the total European crop give a total of 11,124,626 short tons, compared with 9,248,045 short tons produced by the same countries last year, an increase of 20.3 per cent.

The only country reporting a decrease is Belgium, where production for this season is 5 per cent less than in 1923. Hungary shows the largest increase, the crop for this year being estimated at nearly 62 per cent more than that of last year. The increase in the Netherlands is nearly 34 per cent and that of Poland almost 25 per cent.

A Map of Cuba

Showing the location of all the active sugar plantations, engraved in colors on a high grade paper, with printed addendum giving sugar statistics to and including 1921-1922 production. Size 16 x 37 $\frac{7}{8}$. Price 50c. postpaid.

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ADVERTISING RATES ON APPLICATION

Vol. XXIII

January, 1925

No. 2

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Drying Henequen Fibre

THE CUBA REVIEW

"ALL ABOUT CUBA"

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VOLUME XXIII

January, 1925

NUMBER 2

Cuban Government Matters

Campaign in Favor of Better Roads

In connection with the campaign for better roads initiated by the National Federation of Highway Improvement, a meeting was held in Cienfuegos on the first Sunday of October, to discuss the subject of road development. Representatives were present from the Rotary Clubs, commercial associations, and engineering and architectural societies, a number of other persons interested in this movement also attending.

In the towns of Piedrecitos, Florida, and Céspedes committees have been organized, at the suggestion and with the assistance of the Federation of Transportation, to supervise the construction of new routes of communication. It is hoped that other towns will second this movement, which offers such material advantages to all the inhabitants of these communities.

The National Federation at present is working for the completion of the great central highway, an important project which has been under consideration for some time.

Appropriation for Public Works Department

By presidential decree \$25,000 has been appropriated for extraordinary expenses of the Public Works department.

City of Havana Loan

It is reported that the municipal administration of Havana is perfecting plans for a public offering of a \$10,000,000 7 per cent loan for the purpose of meeting the first and second mortgage bonds issued in payment of the city's public lighting installation and water supply. City property valued at some \$24,000,000 is to be pledged as security for the new loan.

The Secretary of the Treasury has completed his projected budget for the coming fiscal year. Revenue amounts to \$76,719,000, expenditures to \$70,824,828 and surplus to \$5,894,176.

Observance of Eight-Hour Law

A resolution issued by the Department of Agriculture, Commerce, and Labor calls the attention of proprietors of stores and similar establishments to the necessity for strict observance of article 9 of the eight-hour law regulations, by which they are obliged to keep a registry book, marking the time the clerks come to work, when they leave, and the number of hours employed. The registry must be signed by the employee.

New Cable to Cuba

The New York end of the cable that is to connect Cuba with New York and form a link in the Central American and West Indian service of All America Cables, Inc., was brought ashore December 28th at Oriental Point, Manhattan Beach. The American end of the cable was played out from a huge spool on a Merrit-Chapman wrecking boat lying offshore between Manhattan Beach and Rockaway Point.

The cable will have its southern end on the edge of Guantnamo Bay, near the United States naval base there, approximately 1,500 miles from the New York station.

There were ten miles of cable on the reel brought to the entrance of Jamaica Bay by the wrecking boat and the work of getting the end on shore began at day-break. Men in a rowboat brought the first line ashore. It was a frail-looking but strong silk cord, and once the crew on shore began to draw this in another, a manila, line was fastened to it. Then came a heavier line, and then the men began paying the heavy cable over the side of the boat. The hauling in of the cable was slow work, for the crew had to drop over buoys at intervals and attach these to the cable. So the heavy cable was not dragged in, but was towed floating ashore. The final drag from the beach to the cable house was accomplished by a motor truck.

While the crew was engaged in drawing the cable ashore another gang was digging a trench from the water's edge to the shore station. This was about three or four feet deep, and in it the cable was buried after the section had been brought ashore and anchored.

The 1,500 miles of cable weighs approximately 4,500 tons. It was brought to New York from England on the cable steamer *Colonia*. The vessel arrived December 25th, and the next day the work of getting the ten miles, or what is called the shore end, on the barge was begun. The new cable will be an express line, it is said, which means that it was constructed for speed as well as for capacity. It will be the third of the main cable lines of the All-American Cables. When the end at Fisherman's Point, Guantnamo Bay, is connected it will serve as a link

between Porto Rico, Panama, San Domingo and other West Indian points.

Colonia proceeded to a point about ten miles off shore and the other end of the cable was carried out to her. The end was then spliced to the cable on board, and as soon as possible the *Colonia* will proceed south, laying the cable as she goes. The cable ship should reach Cuba and be ready to discharge the Cuban end in about eight days. It was estimated that she would pay out about 200 miles of cable each day.

The Seventh National Medical Congress

The Seventh National Medical Congress was opened on the 14th of December, at the Academy of Science, where the meetings of the Pan-American Medical Conference were held.

The increasing sympathy for Spain among the Cubans was demonstrated when two distinguished physicians, Dr. Rafael Molla and Dr. Jose Codina Castellvi, entered the room and were saluted by the strains of the Spanish Royal March. These renowned physicians brought greetings from the King of Spain. The visiting medical delegates from the United States, Dr. Howard Fox, Dr. L. E. Fetra, and Dr. George C. Andrews, were also present at the inaugural meeting, which was attended by the Spanish Minister Sr. Alfredo Mariategui, several other diplomats and Cabinet officers, Dr. Enrique Porto, Secretary of Sanitation; Dr. Angel Aballi, President of the Medical Congress; Dr. Fernandez, General Secretary; Dr. Lopez del Valle and many distinguished women.

A brilliant treatise on *Cancer* was given by Dr. Alfredo Dominguez y Roldan, and as a result, it was agreed to petition the Cuban Government to establish "A League Against Cancer."

Dr. La Fetra of New York illustrated his treatise with cinematographic views. Dr. Samuel G. Gant as well as Dr. La Fetra spoke in English. Dr. George MacKee and Dr. George Andrews from New York chose as their subject with illustrations "Diseases of the Skin."

Dr. Octavio Montoro's treatise on *Dia-betes* and the treatment for its cure was of

great interest. Several Cuban physicians advocated the plan for establishment of proper cookery and special kitchens for patients of that disease in the city hospitals. A proper diet is conducive to the cure of the ailment.

The *transfusion of blood* was also a subject of interest which was expounded by Dr. Alberto Recio and Dr. Alfredo Figueras. (In regard to this, several cases of transfusion of blood have been successful recently in Havana.) A subject of general interest was treated by Dr. Rafael de Castro—"Milch Cow and Its Relation to Public Hygiene."

At one of the sessions Dr. Julia Maria de Lara expounded the *morphine habit* and the menace of health and counseled a stricter enforcement of the law against the sale of hurtful drugs.

A paper by Dr. Juan Guiteras was read and a congratulatory message was forwarded to him, as he is now in Matanzas.

Child Welfare and the necessity of dental care were also matters of interest.

Nor were our "Dumb Friends" overlooked and Dr. Julio Brower spoke in their behalf.

The subjects ranged over a wide field and many learned papers were read.

Several receptions were given and other functions for the entertainment of the fraternity.

A Medical Congress by the Press was held during the previous week and as a result Dr. Ramos instituted *A League for Social Purity*. The Tennis Club, the Club Femenino and other prominent associations have subscribed for the betterment of Hygiene.

In these brief notes, only a cursory review can be made of vital subjects treated in this Medical Congress, which is thought-provoking and arouses general interest.

To Improve Livestock

The Department of Agriculture, Commerce, and Labor has made an allotment of \$15,000 to purchase blooded livestock for breeding purposes in the Provinces of Santa Clara, Camagüey, and Oriente.

Repeal of 4 Per Cent Tax

The Cuban Chamber of Commerce met recently to take up two matters of interest to the sugar industry. One is the proposed repeal of the 4 per cent tax; the other, the recent protest of the chamber against the intention of the customs authorities to restrict the application of Section 215-B of the tariff, which deals with duties on sugar machinery. Customs officials claim that tanks and other machinery used in the sugar industry should be assessed under a different item.

Library for Workmen

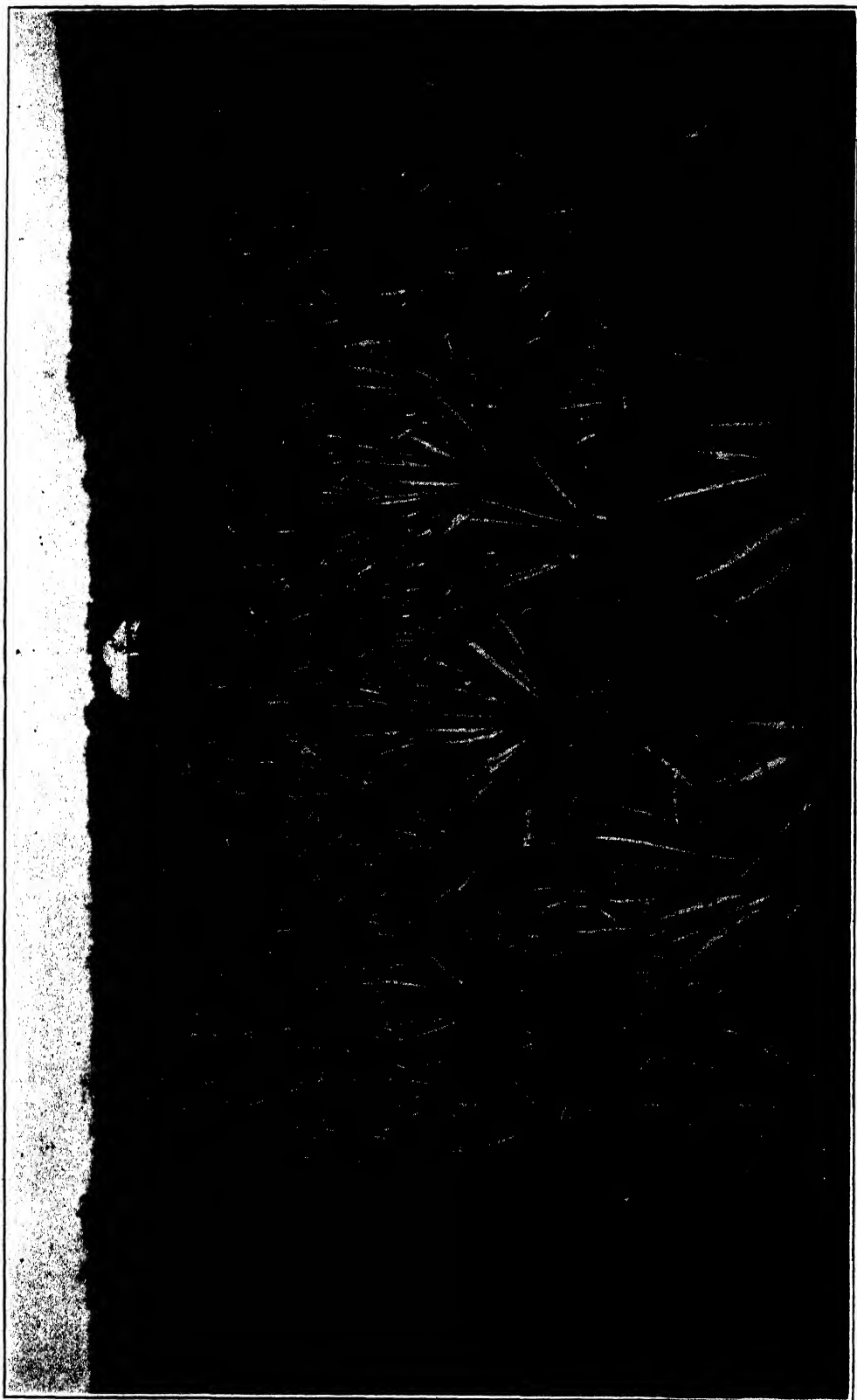
The library for workmen, founded in Habana, due to the initiative and generosity of Dr. Oswaldo Guerrero, whose name it now bears, has during the first year of its existence proved of great service. This library, which now contains 304 volumes and a number of magazines and newspapers, is located in the building of the National Labor Union.

Appropriations for Geological Investigations

A recent Executive decree assigned two credits to the Department of Agriculture, to be employed in geological investigations and survey work, including the marking of boundary lines, the drawing and printing of geological maps, and surveys in mountainous regions and mining districts.

Train for Tourists

At the beginning of 1925 a new train will be put in operation between the cities of Habana and Santiago de Cuba for the tourist season. The coaches are being built especially with reference to the climate of Cuba, and the train, which will be one of the finest of its kind, will consist of observation-compartment cars, dining car, baggage and kitchen car, and will also be equipped with baths and barber shop.



A Field of Henquen

Henequen

The Rainbow of Hope—Development of a New Industry in Cuba

By George Reno

Those who are interested in the welfare of Cuba have long lamented the fact that, up to the present at least, this is largely a one-crop country. Sugar is King and has been for more than half a century, with tobacco a poor second. From the cultivation of cane and the conversion of its juice into sugar we are deriving some \$400,000,000.00 annually, and this forms by far the greatest source of our income, is, in fact, the life blood of the Republic. Tobacco yields us approximately \$40,000,000.00, a large part of which is consumed at home and so gives us little to sell abroad. And in the tobacco industry, too, we have strong competition in the United States.

Next in the order of exports we have copper, iron, and a few other minerals which brings us a return of some ten or twelve millions. From this we drop down to less than half with the export of pineapples, citrus fruits and vegetables, which yield four or five millions. Trailing along come hides, honey, beeswax, hardwoods, etc., with some three or four millions. But from the above figures it may be readily seen that our national revenue, our source of commodities which can be exchanged for cash in the outside world, is confined very largely to sugar. And this in any country is unfortunate since, although the climate and rainfall of Cuba are most dependable, if by chance we meet with a bad season or a period of low prices prevails in the sugar markets of the world, Cuba will undoubtedly suffer serious loss, if not economic disaster.

Men who are familiar with conditions and interested in the commercial future of the island realize the danger, and have long sought some agricultural industry that could be developed on a large scale within the limits of the Republic, and thus form a running-mate for our chief industry—sugar. Something that would furnish us a line of defense in case of accident to the one great crop on which we at present rely for our source of national revenue. And this, we believe, has at last been found in the plant known as Henequen and the conversion of its fibre into sisal, a product for which there is an unlimited demand throughout the United States and Canada, and will in time probably find ready sale in all sections of the world where grain crops are produced in large quantities.

Up to ten years ago, or, more accurately, with the beginning of those revolutions which brought about the downfall of Porfirio Diaz, Dictator of Mexico, one province or state of that unfortunate Republic furnished the world with sisal derived from the Henequen plant that was indigenous to Yucatan. The development of this industry made Merida famous as the city of millionaires, a reputation which might have been enjoyed indefinitely had it not been for the almost continual revolutions that swept over Mexico, rendering the industry practically impossible.

As an illustration of the extent to which the sisal industry suffered in Yucatan, it may be mentioned that only a few months ago one of the largest cordage manufacturers in the United States sent agents to Merida, where they finally succeeded in purchasing direct from the growers of Henequen and manufacturers of sisal a sufficient amount to justify the sending of several vessels for this freight. The material was paid for, and after many difficulties was finally gotten aboard the steamer, when the officials who today control the ports of Yucatan sent officers and soldiers on board with instructions to see that said cargoes of sisal did not leave Merida. And there it lies today, awaiting diplomatic action, and will undoubtedly result in heavy damage if not total loss to the purchasers.

As may readily be seen, this condition of affairs became so discouraging that many producers abandoned the business. Some of them came to Cuba to look over the ground and study soil conditions with a view to starting the sisal industry in this Republic, lying as it does in the same latitude and only one hundred miles distant. Among these early pioneers who had devoted most of their lives to the cultivation of Henequen and who for political reasons had been compelled to leave Yucatan, was Don Antonio Teresa.



Henequen Field Four Years Old, Producing Fibre

He with several associates purchased land near the city of Nuevitas and there started a plantation which, under their skilled management, soon became a pronounced success. But these men, arriving in Cuba with comparatively little capital, worked at a disadvantage, since they were unable to secure modern machinery with which to convert their pencas into sisal. But they devoted their energies to extending the plantation as rapidly as possible, which was easy, since each mother plant sends up from six to twelve suckers every year, and these form the most costly item in starting the sisal industry. With crude machinery, however, they succeeded in decorticating their fibre and bailing it for export under difficulties.

Long before this, however, one of the Governors of Cuba during the Spanish régime succeeded in getting a few plants from Yucatan which were set out in the eastern end of Cayo Romano, some forty miles west of Nuevitas. From this nucleus several thousand suckers were afterwards purchased and carried by two German residents to the city of Matanzas, where they were planted on the hills that face the harbor. These, through the rapid multiplying of suckers, soon formed a large plantation, the owners of which established the present cordage factory which for some time past has supplied the home market of the island with most of the rope and binding twine used in this Republic.

At the beginning of the European War the International Harvester Company and binding twine manufacturers of the United States, realizing the hopeless conditions of the sisal industry in Yucatan, dropped an anchor to windward by purchasing several large areas of Henequen land between Matanzas and Cardenas, forty miles farther east. Since then the same firm has purchased several thousand more acres northwest of the city of Cienfuegos, where Henequen is being planted for future use. With these additional plantations they are evidently endeavoring to become independent of Mexico for their supply of sisal.

In the meantime other manufacturers of cordage in the United States became anxious in regard to the future supply of sisal for their factories. Some three years ago Mr. George H. Simon, one of the directors of the Plymouth Cordage Company of Massachusetts, the second largest manufactory of cordage in the world, called at the Bureau of Technical Information in Havana to discuss the possibilities of Henequen growing in

Cuba. Mr. Simon is the foreign field agent for his company, and is probably the best informed man in America in regard to sisal production and raw material for cordage manufacture of all kinds.

He had just come from Mexico and was anxious to get information in regard to the various sections of Cuba where the soil might be adapted to Henequen culture. He told me frankly that his company, with its factories in New England and Canada, was worried in regard to the production of sisal on which they were dependent for the continued manufacture of cordage. I indicated several localities throughout the island that, in my estimation, were well suited for Henequen culture, and he at once ordered the company's soil expert to join him in Havana.

Mr. Simon soon got in touch with Antonio Teresa, mentioned above as the founder of a Henequen plantation near Nuevitas, and who is probably the best informed man in this country in regard to Henequen growing and fibre extraction. Together these gentlemen went to Camaguey and there made a careful study of soils, subsoils, and all of the various factors essential to sisal production. Mr. Simon was very much pleased with what he saw, and so reported to his company in Massachusetts, where he urged them to follow the lead of their competitors and invest capital in Cuba, at least in sufficient amount for demonstration purposes.

This was done last spring when the Plymouth cordage people organized a subsidiary company in Havana, known as the Spanish American Cordage Company, and purchased the Teresa property at Nuevitas, where they have established the most up-to-date type of sisal industry in America. Special machinery was brought from Yucatan and installed with electric power and oil engines for emergencies. The plant was put up by the inventor, who came on from Merida. In its capacity as a single unit 100,000 pencas are defibered every day and the sisal baled in packages of 450 pounds each, ready for shipment to Boston.

The soil surrounding the Bay of Nuevitas is excellently adapted to the culture of Henequen, and the rendition, in both quantity and quality of fibre, exceeds all known records, running far ahead of anything ever known in Yucatan. The net returns per acre of Henequen are far in excess of profits that are known to accrue from the cultivation



One Thick Spot of Plants and Suckers

of cane and the manufacture of sugar, which is not only gratifying to the Plymouth Cordage Company but of great importance to the agricultural future of Cuba.

During the installation of decortivating machinery on the Nuevitas plantation and the extension of their plantings in adjoining lands, the Bureau of Technical Information in Cuba instituted a campaign of exploration throughout the Republic in order to ascertain the possible amount of land whose soil and location would permit of Henequen culture under favorable conditions. These conditions are essential to success and can not be ignored. The result has been a demonstration of the fact that we have in Cuba not thousands but millions of acres of land far better adapted to Henequen than anything ever found in Yucatan, the original home of this marvelous fibre plant.

The secret of Cuba's superiority as a sisal producing country rests on the following facts: Our top soil is richer, our limestone strata are softer, and our rainfall is eight times as great, while our facilities for rapid and cheap transportation are infinitely better. Then again our labor is abundant and is not dominated by the labor agitators who have put all industries of Eastern Mexico practically out of commission.

The true Henequen plant, or the sisal producer of commerce, will grow in any good soil in Cuba, but in order to have a strong fibre, its roots, at a depth not to exceed six or eight inches, must find a resting place on soft limestone rock. In lieu of this underlying limestone ledge, a liberal amount of pebbles or broken pieces of lime rock will suffice, but land devoid of this factor will not yield a plant of strong fibre.

Fortunately for Cuba and the binding twine industry, nearly all of our mountain chains and foot hills are composed of limestone ledges that were, at some time, thrown up from the deep sea floors of the Caribbean and the Gulf of Mexico. All we have to do is to utilize them. And again, fortunately, these lands of shallow top soil have not sufficient depth for sugar cane, and therefore are comparatively cheap, as nearly all valuations of land in Cuba are based on their ability to produce good cane.

Henequen lands in Cuba may be purchased today at from \$20.00 to \$30.00 per acre, while cane lands will cost from \$40.00 to \$100.00. This disparity, however, in the price of lands will probably not long continue, since estimates based on the initial capital required for the installation of sugar mill estates, the cultivation of cane and the making of sugar, when compared with the cost of placing the same area in Henequen and the production of fibre, with the resulting profits per acre, seem to be decidedly in favor of the sisal industry. A few figures will illustrate:

The capital required for a sugar estate of ten thousand acres operating in Cuba will approximate \$5,000,000.00. Such an estate, under favorable circumstances with a rendition of eleven pounds of sugar to each one hundred pounds of cane, should yield 82,500,000 pounds of sugar. This crop sacked, loaded on board steamer at a Cuban port, and sold at $3\frac{1}{2}$ cents per pound would bring \$2,887,500.00. Calculating the cost of the sugar at $1\frac{1}{2}$ cents f. o. b., or \$1,237,500.00, there would remain a difference or return of \$1,650,000.00, which sum, divided with the colono or grower of the cane, leaves a net profit to the mill of \$825,000.00, or 15% on the invested capital of \$5,500,000.00.

The same area of land, ten thousand acres, purchased at \$22.50 per acre, cleared, prepared and planted with 9,900,000 Henequen suckers at \$150.00 per thousand, together with necessary defibering machinery at \$160,000.00, \$370,500.00 for preparation and installation, \$189,900.00 for care and cultivation during three years, and \$250,000.00 for working capital, will represent an investment of \$2,697,000.00.

The annual yield from the estate, counting forty pencas to each of the 9,900,000 plants, will be 396,000,000 leaves. These, with one hundred pounds to every thousand leaves, will give us 39,600,000 pounds of sisal fibre. This, sold at eight cents per pound f. o. b. at a Cuban port (sisal is today worth nine and one-half cents in New York), will represent \$3,168,000.00. Estimating the cost of decortication or removal of the fibre at \$2.50 per thousand leaves, we have an expense of \$990,000.00, leaving a net return or profit of \$2,178,000.00.

Utilizing the \$178,000.00 for cost of additional planting we still have \$2,000,000.00 clear, which will represent 74% on the original investment of, say, \$2,700,000.00. Again,



Gathering Fibre from the Drying Racks

deducting 24% for interest at 6% during the four years of waiting for plants to reach maturity, we still have a 50% dividend. And since in succeeding years from period of maturity, the cost of suckers, preparation and planting, etc., amounting to \$2,000,000.00, is eliminated, the returns from said Henequen plantation may be considered as "clear velvet," or practically 100% on capital invested each year.

The above estimates are not guesses; they are based on figures determined from results achieved at the Spanish American Cordage Company now operating at Nuevitas, Cuba, where verification is invited. They can be repeated under intelligent management on any suitable Henequen soils in Cuba, and undoubtedly will be as soon as the facts are become known.

We are informed that Governor Fuller of Massachusetts and Mr. James M. Curley, Mayor of Boston, both of whom are said to be most favorably impressed with Cuba and her opportunities for investment, have been invited to visit Havana this winter and make a tour of inspection throughout the length of the island so that they may report to their people in New England in regard to the wealth of natural resources which await development in this "Pearl of the Antilles."

The advantages of the sisal industry are many:

- 1st: Comparatively cheap lands produce Henequen;
- 2d: The plant lives from twelve to twenty years and reproduces itself during life in the form of suckers a hundred times or more;
- 3d: It cannot burn as does cane, and animals will not eat it, hence, fences are not necessary.
- 4th: Its cultivation is easy, and defibering machines are not expensive.
- 5th: The crop may be gathered, defibered and stored for a long time without deterioration.
- 6th: The demand for sisal is constant throughout the year.
- 7th: Sisal is seldom if ever subject to speculation in the open market.

In view of the above results, actually obtained at Nuevitas and the great area of land so well adapted to Henequen culture in Cuba used today only for pasture, there is undoubtedly a great field for the production of sisal and the development of a new agricultural industry; one which, within the next decade, should not only run King Sugar a close race for supremacy, but will give us another strong line of defense on which to fall back in case of emergency, while adding greatly to the wealth and prosperity of the Republic.

Guantánamo Sugar Company

Nineteenth Annual Report

For the Fiscal Year Ending September 30, 1924

New York, November 24, 1924

To the Stockholders of the Guantánamo Sugar Company:

Your Directors beg to submit the accounts of the Company and a copy of the Balance Sheet for the year ending September 30, 1924, as audited by Messrs. Price, Waterhouse & Company.

The amount of cane ground was 269,606 short tons and the sugar produced 31,631 short tons, or 197,693 bags of 320 pounds. This production was about 59% greater than that of the previous year as a result of somewhat better rainfall and as a partial result of the replantings made in the spring of 1923.

There has been a steady improvement in growing conditions and the rainfall, which was still deficient last year, has been about normal since January first.

The cane planting program has progressed satisfactorily. In the last two years some ten thousand acres which had been injured by the drought of 1922 have been restored to vigorous growth and the Company now has over thirty thousand acres in cane. The supply for the coming crop is materially larger than at this time last year, making it advisable that the three mills be operated.

The factories obtained better technical results last year than ever before and are in good condition for the coming crop.

Up to this date three hundred and fifty shares of the Preferred Stock have been purchased for account of the Sinking Fund.

The staff have worked unselfishly in the Company's interest and it is desired to express appreciation of their efforts.

By order of the Board of Directors.

JAMES H. POST,
President.

BALANCE SHEET

ASSETS

REAL ESTATE, CANE LANDS, BUILDINGS, EQUIPMENT AND OTHER	
PERMANENT INVESTMENTS.....	\$6,389,101.29
Add—Machinery and apparatus purchased to be installed....	69,259.47
	<u>\$6,458,360.76</u>
Less—Reserves for depreciation, replanting and extraordinary repairs.....	1,442,081.70
	<u>\$5,016,279.06</u>
ADVANCES FOR PURCHASE OF ADDITIONAL SUGAR LANDS.....	473,500.00
INVESTMENT IN GUANTANAMO RAILROAD COMPANY:	
Notes.....	\$1,000,000.00
Advances.....	133,793.08
Stock—7,809 shares.....	1.00
	<u>1,133,794.08</u>
STOCK OF GUANTANAMO SUGAR COMPANY PURCHASED FOR SALE TO EMPLOYEES, 2,500 SHARES OF COMMON STOCK AT \$10 PER SHARE.....	25,000.00
CURRENT AND WORKING ASSETS:	
Growing crop carried over to 1924-1925 season.....	\$296,416.07
Inventories (as certified by responsible officials)	
Raw sugar on hand.....	\$424,176.23
Molasses.....	966.96
Stores and supplies in stock and in transit	352,891.37
Materials and spare parts.....	92,475.66
	<u>870,510.22</u>

Prepaid insurance and interest.....	\$26,988.42	
*Advances to Colonos (1924-1925 crop and prior years).....	\$1,730,984.20	
Less—Reserve.....	193,089.49	
	<u>1,537,894.71</u>	
Miscellaneous accounts receivable, less reserve.....	142,321.63	
Cash in banks and on hand (New York and Cuba).....	176,990.91	
		<u>\$3,051,121.96</u>
		<u>\$9,699,695.10</u>

LIABILITIES

CAPITAL STOCK:

Preferred 8% cumulative:	
Authorized—15,000 shares of \$100 each... \$1,500,000.00	
Less:	
750 shares retired and cancelled.....	\$75,000.00
350 shares purchased for sinking fund.....	35,000.00
	<u>110,000.00</u>
	\$1,390,000.00
Common:	
Authorized—375,000 shares of no par value.	
Issued and outstanding	
364,250 shares of no par value.....	\$3,642,500.00
2,150 shares of unconverted \$50 par value stock (old issue).....	107,500.00
	<u>3,750,000.00</u>

\$5,140,000.00

CURRENT LIABILITIES:

Notes payable.....	\$1,902,500.00
Accounts payable.....	188,440.36
Taxes and contingencies.....	11,037.10

2,101,977.46

UNEXPENDED FUNDS:

For 1924 dead season repairs and maintenance.....	\$75,000.00
For maintaining soil fecundity.....	72,447.16

147,447.16

SURPLUS:

Balance at September 30, 1923.....	\$2,264,559.38
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Add:

Profit on operations for year.....	\$216,645.62
Discount on preferred stock purchased for sinking fund.....	4,697.50
	<u>221,343.12</u>
	\$2,485,902.50

Deduct:

Additional reserve for colonos' accounts and inventories applicable to period prior to September 30, 1923.....	\$61,632.02
Dividends on preferred stock.....	114,000.00
	<u>175,632.02</u>

2,310,270.48

\$9,699,695.10

*Note—Of the above amounts advanced to secure Colonos cane more than \$500,000 is guaranteed by first mortgages.

GUANTANAMO SUGAR COMPANY

PROFIT AND LOSS ACCOUNT

Year ending September 30, 1924

Gross sugar sales, less sea freight, commissions, etc.....	\$2,477,005.93	
Molasses sales.....	115,033.56	
		<u>\$2,592,039.49</u>
Deduct producing and manufacturing costs, shipping and general expenses.....		2,321,344.56
Profit on operations before providing for depreciation and income taxes.....		<u>\$270,694.93</u>

INCOME:

Interest (net).....	\$117,372.56	
Rents (net).....	33,344.11	
Miscellaneous (net).....	16,924.21	
		\$167,640.88
Provision for depreciation.....	\$218,690.19	
Provision for Federal income taxes.....	3,000.00	
		221,690.19
Profit for year.....		\$216,645.62

GUANTANAMO RAILROAD COMPANY

BALANCE SHEET, JUNE 30, 1924

ASSETS

CAPITAL ASSETS:

Cost of road, land, buildings, rolling stock, equipment, etc...	\$2,431,693.31	
Less—Reserve for depreciation.....	441,436.85	
		\$1,990,256.46

WORKING ASSETS:

Fuel oil.....	\$4,739.39	
Materials and supplies.....	44,463.93	
Insurance unexpired.....	2,978.34	
		52,181.66

CURRENT ASSETS:

Accounts receivable, including claims, cash, etc., less reserve for doubtful accounts	97,737.94	
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Total assets..... \$2,140,176.06

DEFICIT:

Balance at June 30, 1923.....	\$36,552.76	
Add Loss for year ending June 30, 1924.....	89,769.52	
		126,322.28
		\$2,266,498.34

LIABILITIES

CAPITAL STOCK:

Authorized—10,000 shares of \$100 each.....	\$1,000,000.00	
Less—11 shares unissued.....	1,100.00	
		\$998,900.00

GUANTANAMO SUGAR CO.:

*Notes.....	\$1,000,000.00	
Current account credit balance.....	141,427.51	
		1,141,427.51

CURRENT LIABILITIES:

Loans repayable in services.....	\$93,013.82	
Audited vouchers unpaid.....	4,727.85	
Miscellaneous accounts payable.....	27,457.00	
		125,198.67

PENSION FUND..... 972.16

\$2,266,498.34

*Sugar company balance as of September 30, 1924. Railroad company balance as of June 30, 1924.

GUANTANAMO SUGAR COMPANY

129 FRONT STREET

New York, November 28, 1924.

To the Stockholders of *Guantanamo Sugar Company*:

There has been such a material and welcome improvement in the conditions and outlook of your Company, that the Directors feel you should be informed at once of the changes, and therefore summarize below a report just received from our General Manager, Mr. George H. Bunker.

Most important of the factors contributing to the improvement for the immediate future, is a return of weather conditions to normal. With the disastrous drought of 1922, and the drought of 1923, which was only slightly less severe, there came a tremendous decline in our cane supply and, consequently, in our production.

The rainfall averaged only 20 inches in 1922, and 36 inches in 1923. This year we have had an ample water supply, some of our rain gauges recording over 70 inches for the ten months to October 30. While this heavy rainfall assures a good crop this year, it is infinitely more important as indicating that there has been no permanent change in the climatic conditions which have made the Guantanamo an unusually fertile valley. The full effects of the replantings made and of the better weather will only in part be reflected in this winter's crop, but our estimates already indicate sufficient cane in the fields for a production of 300,000 bags. The comparison of production would thus be roughly, for the year 1922, 124,000 bags; for 1923, 197,000 bags, and for 1924, cane enough for 300,000 bags.

For future years, a considerably larger and cheaper production than our former average is desirable, and we believe we are progressing toward that end. In the first place, the condition of our old fields near the factories is being steadily improved. We have successfully imported and are rapidly extending plantings of new cane varieties. These have already proved themselves superior to our old cane. Within six months, we have also secured control of a splendid cane district already traversed by our railway. In this district, at least an additional 2,000 acres of virgin forest land will be cleared and planted to cane in the immediate future. For development at a later date, we have the reserves of forest lands in San Carlos, Iguanabanos and Filipinas—a total of some 60,000 acres, with at least 20,000 acres which we believe excellent for cane. Careful records of rainfall in the new districts indicate that these lands received fully as much as the rainfall on our average fields. Tobacco, pineapples, corn and test plots of sugar cane have shown splendid results in these districts. There no longer seems any question of the great future importance of these undeveloped reserves.

We naturally can make no predictions as to the future, but we feel that the stockholders are entitled to a knowledge of the progress which has already been made and of the extensive resources which the Company has for future development.

Yours very truly,

GUANTANAMO SUGAR COMPANY,
JAMES H. POST, *President*.

Cuba's Molasses Output

According to a report to the Department of Commerce from Havana, it is estimated that Cuba's production of molasses for the 1923-24 crop season will be about 193,000,000 gallons. Approximately 150,000,000 gallons of this quantity will be exported by the three large exporting companies operating in the island. The balance of 43,000,000 gallons will be absorbed locally or shipped out by minor exporters. Of the molasses consumed in Cuba by far the greater portion is used in the production of industrial alcohol.

Additions to the Mazorra Insane Asylum

Three new wards are being built at the Mazorra Insane Asylum for the Cuban Government by Contractor Gonzales Naranjo at a cost of \$135,000.

Cattle Experts Appointed

The Cuban Agricultural Department has appointed Federico Fernandez Casas and Francisco Vidal y Mas, to study the cattle industry in Venezuela, Colombia and Panama.

Cuban Commercial Matters

Cuban Tobacco and Tobacco Products Exported to the United States

By Ramon La Villa Ramon
(Statistical Data from the files of El Tabaco, Havana)

United States bought from Cuba in the fiscal years 1922-1923 and 1923-1924, leaf and manufactured tobacco valued at \$50,971,284. Of this \$43,998,000, equivalent to 86.31 per cent, was invested in leaf and stripped tobacco and \$6,973,284, equivalent to 13.69 per cent, belong to purchases of manufactured tobacco. Some 44,850,226 pounds of Cuban leaf tobacco was imported by the United States in the fiscal years from 1922-1923 and 1923-1924. Thanks to the unequaled and much coveted Nicot leaf as well as its producing capacity. Cuba holds out a brilliant perspective to those who employ their capital and energies in the tobacco field.

By carefully studying the march of the times and analyzing the evolutionary process of the tobacco production and industry in the various countries of Europe and America, the intimate conviction is easily arrived at that the future of this rich and beautiful Cuban nation, after the development of its principal, the sugar industry, unquestionably lies in the further development of its output of tobacco whose incomparable leaf up to the present can be satisfied that it has no possible competition, since there exists no section in the world producing a similar plant nor even approaching the same, and that neither art nor science, nor both combined, are capable of producing another leaf showing the same results, no matter what the resources drawn upon.

The rich Vuelta Abajo cigars which leave the port of Havana have no possible substitute and must always be in the preferred class so long as the "vice" of smoking exists in the world which vice, by what can be observed, if not born with man, may at least be said to die with him, because there is nothing to indicate that even in the future the slightest competition need to be feared as regards its exquisite quality.

The tobacco produced in Cuba is the favorite everywhere, in spite of the fact that all the governments propose to refuse admission to it in their respective dominions, by imposing increased customs duties on it, which result in a fabulous price, almost impossible for the smoker to tolerate.

As a proof of what we have stated we point to the magnitude of our export trade in leaf and manufactured tobacco with the United States, the leading market available to Cuba.

THE TOBACCO EXPORTED BY CUBA TO THE UNITED STATES, COMPARING THE FISCAL YEARS 1922-1923 AND 1923-1924

Tables showing the export of tobacco and its derivatives, with values indicated, from Cuba to U. S. during the fiscal year, are shown below.

The summary of the exports of tobacco and its derivatives sent by Cuba to the United States in the fiscal years 1922-1923 and 1923-1924, shows that in the fiscal year 1923-1924, excepting the group of cigarettes (packages), all the other groups have experienced a slump.

The absolute difference by groups during the fiscal year 1923-1924, compared with that of 1922-1923, is as follows: Leaf tobacco, less, 1,011,866 kilos. "Stripped tobacco," less 944,596 kilos. "Cigars," less, 550,419 cigars. "Cigarettes," more, 21,051 packages. "Cut tobacco," less, 47,124 kilos.

The total value of the tobacco and its derivatives exported by Cuba to the United States, had a slump in the fiscal year 1923-1924, compared with that of 1922-1923, of \$29,106, equivalent to 0.11 per cent.

The difference in the value by groups in the fiscal years, 1923-1924, compared with that of 1922-1923, was: "Leaf tobacco," less, \$257,651, equivalent to 3.07 per cent.

"Stripped tobacco," more, \$343,933, equivalent to 2.53 per cent. "Cigars," less, \$84,313, equivalent to 2.40 per cent. "Cigarettes," less, \$434, equivalent to 7.31 per cent. "Cut tobacco," less, \$30,641, equivalent to 85.21 per cent.

The average value by groups in the fiscal year, 1922-1923, was as follows: "Leaf tobacco," \$1.84 per kilo. "Stripped tobacco," \$2.01 per kilo. "Cigars," \$112.89 per thousand. "Cigarettes," \$93.77 per thousand packages. "Cut tobacco," 60 cents per kilo.

In the fiscal year 1923-1924, the average value by groups was, "Leaf tobacco," \$2.29 per kilo. "Stripped tobacco," \$2.39 per kilo. "Cigars," \$112.17 per thousand. "Cigarettes," \$65.21 per thousand packages. "Cut tobacco," 43 cents per kilo.

Comparing the average values of the fiscal years mentioned, it is seen that in the fiscal year, 1923-1924, leaf tobacco showed an increase of 45 cents per kilo, equivalent to 24.45 per cent; stripped tobacco also increased 28 cents per kilo, equivalent to 13.93 per cent; cigars showed a decrease of 72 cents per thousand, equivalent to 0.63 per cent; cigarettes went down \$28.56 per thousand packages, equivalent to 30.45 per cent; cut tobacco suffered a slump of 17 cents per kilo, equivalent to 28.33 per cent.

The United States imported from Cuba, in the fiscal years 1922-1923 and 1923-1924, leaf and manufactured tobacco valued at \$50,971,284.

FISCAL YEAR WHICH TERMINATED JUNE 30, 1923

	Leaf Tobacco		Stripped Tobacco		Cigars		Cigarettes		Cut Tobacco	
	Kilos	Value	Kilos	Value	Number	Value	Packages	Value	Kilos	Value
1922										
July.....	507,448	\$804,919	541,689	\$1,067,994	2,440,937	\$263,804	4,725	\$306	34	\$39
August.....	301,337	547,091	499,805	1,044,745	1,871,400	204,257	20,817	1,818	113	174
September...	378,937	742,952	540,340	978,163	3,053,080	338,220	6,667	792	1,535	936
October.....	278,611	537,357	432,593	807,564	3,951,264	465,211	571	43	693	817
November...	364,995	662,996	500,852	908,564	4,153,387	506,566	985	111	102	123
December...	484,059	880,017	786,485	1,505,120	2,337,450	263,570	1,440	48	1,119	1,155
1923										
January.....	413,931	744,291	623,928	1,281,258	1,760,865	204,897	3,995	481	59	100
February.....	478,558	863,191	657,487	1,350,247	1,946,600	215,444	5,650	640	76	130
March.....	393,852	741,131	683,095	1,438,571	2,473,727	268,721	2,151	225	22,179	12,463
April.....	389,775	751,582	516,406	1,096,641	1,865,733	200,485	8,808	588	11,002	6,241
May.....	298,545	582,831	509,672	1,061,249	2,150,950	229,304	2,358	264	20,097	11,418
June.....	254,869	521,954	456,514	1,035,431	3,017,362	341,964	5,112	618	2,233	2,363
Total.....	4,544,917	\$8,380,312	6,748,866	\$13,575,547	31,022,765	\$3,502,443	63,279	\$5,934	59,242	\$35,959

FISCAL YEAR WHICH TERMINATED JUNE 30, 1924

	Leaf Tobacco		Stripped Tobacco		Cigars		Cigarettes		Cut Tobacco	
	Kilos	Value	Kilos	Value	Number	Value	Packages	Value	Kilos	Value
1923										
July.....	267,648	\$596,564	392,743	\$865,868	2,214,526	\$244,435	.....	.....	660	\$756
August.....	329,469	721,499	404,380	874,444	2,128,880	237,905	870	\$92	309	335
September...	393,498	836,286	464,890	1,096,202	3,597,740	400,548	8,320	872	1,213	1,108
October.....	367,755	787,159	432,736	925,292	4,503,065	521,056	950	73	70	104
November...	250,533	506,726	403,375	834,865	5,022,145	580,919	15,080	1,304	7,050	505
December...	298,530	689,483	542,635	1,269,259	2,741,400	316,567	400	18	1,158	774
1924										
January.....	314,010	683,242	461,733	1,172,625	1,473,350	157,268	8,712	853	151	215
February.....	264,322	614,680	538,805	1,313,160	1,248,750	138,061	35,348	1,592	51	75
March.....	423,329	1,091,654	736,951	1,827,927	1,934,895	213,403	1,121	100	137	194
April.....	129,496	321,312	257,610	604,818	1,294,575	142,259	100	9	565	358
May.....	349,857	932,467	771,910	2,075,892	2,366,050	257,529	2,225	209	539	647
June.....	144,604	341,589	396,502	1,059,128	1,946,970	208,180	11,204	378	215	247
Total.....	3,533,051	\$8,122,661	5,804,270	\$13,919,480	30,472,346	\$3,418,130	84,330	\$5,500	12,118	\$5,318

RECAPITULATION

Fiscal Year 1922-1923			Fiscal Year 1923-1924		
	Value			Value	
Leaf Tobacco (kilos).....	4,544,917	\$8,380,312	Leaf Tobacco (kilos).....	3,533,051	\$8,122,661
Stripped Tobacco (kilos).....	6,748,866	13,575,547	Stripped Tobacco (kilos).....	5,804,270	13,919,480
Cigars (number).....	31,022,765	3,502,443	Cigars (number).....	30,472,346	3,418,130
Cigarettes (packages).....	63,279	5,934	Cigarettes (packages).....	84,330	5,500
Cut Tobacco (kilos).....	59,242	35,959	Cut Tobacco (kilos).....	12,118	5,318
Total.....		\$25,500,195	Total.....		\$25,471,089

TAKES GLOOMY VIEW

After carefully analyzing the statistical tables we have explained, it is necessary to shut off the valves of hope to any idea of securing great concessions for the benefit

of our manufactured tobacco, if the present Treaty of Reciprocity is modified which has prevailed between Cuba and the United States for a very long time.

In these tables can be seen how the strong winds of the north have cruelly dealt with the exports of cigars from Cuba; these northerners are the effect of the McKinley bill which has produced such a ruin in the manufactured Cuban tobaccos. The exports of 101,698,560 cigars, bought from us in 1889, have dwindled to 33,423,003 cigars during the year 1923, which constitute the total purchases by the United States.

And this has a perfect explanation. They ceased to import from Cuba manufactured tobacco in order to take away the incomparable leaf tobacco and produce therewith cigars which might be used to replace those made in the Havana factories.

In the fiscal years, 1922-1923 and 1923-1924, in which Cuba sold to the United States tobacco and its products, valued at \$50,971,284, there was \$43,998,000 paid for leaf and stripped tobacco, and only \$6,973,284 for manufactured tobacco. That is to say, that in the fiscal years referred to, of the total value of the exports of Cuban tobacco to the United States, or of the \$50,971,284 that invested in raw material (leaf and stripped tobacco) represents 86.31 per cent, and that invested in the manufactured product (cigars, cigarettes and cut tobacco), is equivalent to 13.69 per cent.

With the 20,631,104 kilos or 44,850,226 pounds of leaf and stripped tobacco which the friendly nation mentioned bought in Cuba, there have been produced in its factories in the fiscal years from 1922-1923 and 1923-1924, assuming that the Cuban leaf was mixed with that of other origin in a proportion of 8 pounds for each thousand cigars, 5,606,278,250 cigars which have been sold to the consumers as "pure Havanas."

In turn, in the fiscal year 1922-1923, the genuine "Havana cigars," those which are produced in the shops of the famous Havana factories, were consumed by the smokers of that country in the proportion of 1.29 cigars for every 300 of those produced there and although we have no data of the consumption of American cigars in the fiscal year, 1923-1924, we venture to assert that this proportion has not changed in any way, which shows in an irrefutable manner that not even one cigar from Cuba is consumed there for every 200 of those which they produce themselves.

We are not surprised at the figures reached by the purchase of leaf and stripped tobacco which the United States have made of Cuba in the fiscal years 1922-1923 and 1923-1924. We say this because these figures have not even remotely reached the limit which they would have arrived at had it not been for the high price which from the year 1916 the Cuban leaf tobacco has fetched and which has prevented the American market from buying to the extent of close to 50,000,000 pounds per annum, or even more, to satisfy the needs of its gigantic tobacco industry which, as the years roll by, assumes ever increasing magnitude.

This assertion is proven by the fact that in the calendar year of 1909, in which Cuban tobacco obtained a value fluctuating between 50 and 60 cents per pound, Cuba sold to the United States 31,734,406 pounds of tobacco.

The day when the United States gives to Cuba a better tariff treatment than that which prevails today, without harming in the least its own tobacco industry, it will be able to consume over 300,000,000 cigars and more than 50,000,000 pounds in leaf tobacco annually, which would substantially increase the volume of our tobacco exports.

That day is not far off, it is close at hand and getting closer; as our tobacco export trade with the great American nation is intensifying, it is seen that in Cuba new firms spring up which engage in the tobacco business whose partners are Americans and that the old firms which exist here, made up of Cubans and Spaniards, are consolidated into others in which figure members of firms engaged in the same line, but established in the north. This naturally gives vigor to the tobacco business, strengthening its development in such a way that a prosperous and eternal life is vouchsafed for it.

Cuba, on account of its unexcelled and coveted leaf tobacco, as well as thanks to its producing capacity, offers a roseate perspective to those who invest their capital in dealing with the rich, sun-kissed island.

"Tobacco."

Canned Goods on Cuban Market

According to U. S. *Commerce Reports*, owing to the climate in Cuba and to the lack of refrigeration on the island, it is necessary that food be bought in small quantities and be so protected that it may not spoil. This is one reason for the very large amount of canned goods of various kinds purchased by Cuba, and makes Cuba one of this country's principal markets for canned foods.

In 1923 Cuba purchased over 49,000,000 pounds of canned goods. Canned milk is the most popular item of canned products in Cuba, others being vegetables, fruit, fish and meat. Cuba is the best customer of the United States for condensed milk and purchased nearly 25,000,000 pounds in 1923. This was 43 per cent. of the total shipments of condensed milk from the United States. Although the exports of evaporated milk are much smaller, Cuba is ranked among the best customers for this product also. A total of 28,400,000 pounds of canned milk was exported to Cuba in 1923. Although the use of powdered milk has developed in recent years, it will probably require a considerable amount of advertising to bring about an extensive use of this commodity in Cuba. An inadequate domestic supply of milk, the difficulty of securing ice in many localities, and the lack of modern methods in handling milk make it unsatisfactory to depend on fresh milk in Cuba, particularly for infant feeding; hence this large consumption of canned milk.

Market for Paper Containers

According to reports of the Department of Commerce, Cuba imported from the United States during November, 152,751 pounds of paper bags and 38,666 pounds of boxes and cartons.

Machinery Exports to Cuba

The Department of Commerce reports that 115 cane and bagasse conveyors, 420 sugar cane mills, 104 centrifugals and other sugar mill machinery valued at \$1,767,603 were exported during the month of October, Cuba being the principal market.

American Capital Invested in Matanzas

The Compañía Hidro-Eléctrica de Matanzas, an electric light company, and the Compañía de Servicios Públicos de Matanzas, controlling the water supply, street railway service, and furnishing electric current for all purposes of the city, have been purchased by an American company. The new owners propose to unite the two companies and reorganize in general the water, light, and street railway services in Matanzas.—*Consul James V. Whitfield, Matanzas, Cuba.*

New Philippine Tariff Bill

Increased duties on sugar imported into the Philippine Islands have been proposed by Secretary of Finance Unson in a bill prepared by his department and approved by Governor General Wood for submission to the Philippine legislature. The bill amends the provisions of the Philippine tariff act enacted in 1909, by providing for higher duties on a number of products. The changes in duties are proposed, according to Secretary Unson, to make the tariff rates imposed by the Philippine government the same as those levied on similar goods imported into the United States, thus preventing any possibility of foreign products taking advantage of the free entry enjoyed by Philippine goods into the United States markets.

Large Sugar Crop in France

The French sugar crop is unusually good this year, according to early returns received from all parts of France by the *Journal des Fabricants de Sucre*, which places the yield at 700,000 tons of refined sugar as against 440,000 tons last year.

It has been estimated that French consumption is about 850,000 tons per annum, and the imports for the period October, 1924, to September, 1925, are not likely to exceed 100,000 tons. High prices have stimulated cultivation of beet area in France, and an increase of 30 per cent is expected this year.

Traffic Receipts of Cuban Railroads

Havana Electric Railway, Light & Power Company

	MONTH OF OCTOBER		10 MONTHS TO OCTOBER 31	
	1924	1923	1924	1923
Operating revenues.....	\$1,197,400	\$1,130,044	\$11,794,474	\$11,059,743
Operating expenses and taxes.....	650,938	554,407	6,123,837	5,312,755
Net revenues.....	546,462	575,637	5,670,637	5,746,988
Other income.....	26,055	24,628	278,220	230,070
Total income.....	572,517	600,265	5,948,857	5,977,058
Interest charges.....	89,946	92,986	909,135	932,382
Income, after deducting taxes and interest charges.....	482,571	507,279	5,039,722	5,044,676
Sinking fund requirements.....	27,340	26,179	263,989	252,063
Balance of income.....	455,231	481,100	4,775,733	4,792,613

Earnings of the United Railways of Havana

Weekly Receipts:	1924	1923
Week ending November 22.....	£65,266	£53,603
Week ending November 29.....	65,453	57,373
Week ending December 6.....	65,813	58,767
Week ending December 13.....	67,025	65,684
Week ending December 20.....	79,147	61,700

Earnings of the Havana Central Railroad Company

Weekly Receipts:	1924	1923
Week ending November 22.....	£12,782	£12,612
Week ending November 29.....	12,791	12,278
Week ending December 6.....	13,311	12,766
Week ending December 13.....	13,509	13,050
Week ending December 20.....	14,268	13,714

The Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

	Bid	Asked
Republic of Cuba Interior Loan 5% Bonds.....	94	94 $\frac{3}{4}$
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	96	98 $\frac{1}{4}$
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	97 $\frac{1}{8}$	98
Republic of Cuba Exterior Loan 4 $\frac{1}{2}$ % Bonds of 1949.....	.....	87 $\frac{1}{2}$
Havana City 1st Mtge. 6% Bonds.....	100	110
Havana City 2nd Mtge. 6% Bonds.....	95	105
Cuba Railroad Preferred Stock.....	86	89
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	84 $\frac{1}{2}$	85
Cuba Company 6% Debenture Bonds.....	90	.....
Cuba Company 7% Cumulative Preferred Stock.....	92	.....
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	93 $\frac{1}{2}$	94
Havana Electric Ry. Light & Power Co. Pfd. Stock.....	100	102
Havana Electric Ry. Light & Power Co. Com. Stock.....	89	91
Cuban American Sugar Co. Preferred Stock.....	98 $\frac{1}{2}$	102
Cuban American Sugar Co. Common Stock.....	30 $\frac{1}{8}$	30 $\frac{1}{2}$
Guantanamo Sugar Co. Stock.....	6 $\frac{1}{2}$	7

The Sugar Industry

Sugar Crops of the World

THE FOLLOWING ARE WILLETT & GRAY'S LATEST ESTIMATES:

<i>Cane Sugar</i>	Harvesting Period	Tons 1924-25	Tons 1923-24	Tons 1922-23
United States—Louisiana.....	Oct.-Jan.	100,000	144,664	263,478
Texas.....	Oct.-Jan.	700	2,500	2,875
Porto Rico.....	Jan.-June	464,000	397,740	338,456
Hawaiian Islands.....	Nov.-July	590,000	620,000	479,463
Virgin Islands, W. I.....	Jan.-June	2,500	2,332	1,739
Cuba.....	Dec.-June	4,300,000	4,066,642	3,602,910
British West Indies—Trinidad.....	Jan.-June	50,000	52,045	41,619
Barbadoes.....	Jan.-June	53,000	44,109	52,715
Jamaica.....	Jan.-June	42,600	33,431	33,029
Antigua.....	Feb.-July	13,000	7,860	12,642
St. Kitts.....	Feb.-Aug.	13,000	10,196	10,735
Other British West Indies.....	Jan.-June	9,000	4,488	5,292
French West Indies—Martinique.....	Jan.-July	23,000	17,000	19,700
Guadeloupe.....	Jan.-July	34,000	27,548	25,043
San Domingo.....	Jan.-June	240,000	229,373	184,171
Hayti.....	Dec.-June	7,000	5,800	10,967
Mexico.....	Dec.-June	165,000	166,932	119,457
Central America—Guatemala.....	Jan.-June	24,000	20,850	24,445
Other Central America.....	Jan.-June	65,000	56,000	50,336
So. America—Demerara.....	Oct.-Dec. & May.-June	100,000	95,494	101,128
Surinam.....	Oct.-Jan.	10,200	10,682	11,719
Venezuela.....	Oct.-June	19,000	17,488	16,840
Ecuador.....	Oct.-Feb.	18,700	13,662	14,220
Peru.....	Jan.-Dec.	300,000	326,352	313,743
Argentine.....	May.-Nov.	240,000	257,349	209,718
Brazil.....	Oct.-Feb.	500,000	425,000	595,723
Total in America.....		7,383,700	7,055,537	6,542,163
British India.....	Dec.-May	2,900,000	3,266,000	3,044,000
Java.....	May.-Nov.	1,972,000	1,771,772	1,746,875
Formosa and Japan.....	Nov.-June	460,000	448,736	405,800
Philippine Islands.....	Nov.-June	462,000	372,000	263,437
Total in Asia.....		5,794,000	5,858,508	5,460,112
Australia.....	June.-Nov.	350,000	281,859	306,678
Fiji Islands.....	June.-Nov.	70,000	58,000	37,154
Total in Australia and Polynesia.....		420,000	339,859	343,832
Egypt.....	Jan.-June	110,000	88,382	94,554
Mauritius.....	Aug.-Jan.	237,000	201,550	231,190
Reunion.....	Aug.-Jan.	43,500	44,132	42,872
Natal.....	May.-Oct.	160,000	181,571	142,287
Mozambique.....	May.-Oct.	70,000	60,000	45,950
Total in Africa.....		620,500	575,635	556,853
Europe-Spain.....	Dec.-June	8,000	7,871	13,918
TOTAL CANE SUGAR CROPS.....		14,226,200	13,837,410	12,916,878

<i>Beet Sugar</i>	Harvesting Period	Tons 1924-25	Tons 1923-24	Tons 1922-23
Europe—Germany.....	Sept.-Jan.	1,640,000	1,146,891	1,455,078
Czecho-Slovakia.....	Sept.-Jan.	1,450,000	1,001,049	734,856
Austria.....	Sept.-Jan.	68,000	47,321	24,468
Hungary.....	Sept.-Jan.	200,000	122,588	81,603
France.....	Sept.-Jan.	800,000	490,850	492,705
Belgium.....	Sept.-Jan.	375,000	300,121	268,928
Holland.....	Sept.-Jan.	330,000	231,923	255,592
Russia and Ukraine.....	Sept.-Jan.	430,000	366,742	193,400
Poland.....	Sept.-Jan.	450,000	389,995	301,890
Sweden.....	Sept.-Jan.	143,000	153,890	71,790
Denmark.....	Sept.-Jan.	140,000	102,358	88,382
Italy.....	Sept.-Jan.	360,000	351,102	297,280
Spain.....	Sept.-Jan.	255,000	185,063	160,035
Switzerland.....	Sept.-Jan.	6,000	5,500	6,033
Bulgaria.....	Sept.-Jan.	40,000	26,566	16,250
Roumania.....	Sept.-Jan.	90,000	71,826	49,872
England.....	Sept.-Jan.	21,700	13,280	7,011
Other Countries.....	Sept.-Jan.	162,300	50,696	69,152
Total in Europe*.....		6,961,000	5,057,761	4,574,325
United States—Beet.....	July-Jan.	875,000	787,217	615,936
Canada—Beet.....	Oct.-Dec.	20,000	16,500	12,400
TOTAL BEET SUGAR CROPS.....		7,856,000	5,861,478	5,202,661
GRAND TOTAL—CANE AND BEET SUGAR.....		22,082,200	19,698,888	18,119,539
Estimated increase in the world's production.....		2,383,312	1,579,349	513,753

*F. O. Licht and other authorities.

Sugar Trade Arbitration Committee

The following statement was issued by the United States Sugar Association, New York, December 8, 1924, to members of the Sugar Industry:

At a recent meeting of the United States Sugar Association, it was decided that an Arbitration Committee, consisting of five members of the industry, and representing as far as practicable the various branches, be appointed. Such a Committee has been appointed, and its purpose will be to fully and fairly hear and consider all matters in controversy, which may come before it, and to make a just award thereon. The personnel, which is sufficient in itself to inspire confidence, is as follows:

M. E. Rionda, of Czarnikow-Rionda Company, Chairman; Frank C. Lowry, of E. Atkins & Company; Frank C. Munson, of Munson Steamship Lines; George H. Finlay, of G. H. Finlay & Company; James Callahan, of Nevers & Callahan.

This Committee is now prepared to function—its awards will have the same force and effect as a judgment of the Supreme Court, and the Secretary of the Association will be pleased to furnish information and particulars about procedure.

Cuba Crop

The Secretaria de Hacienda, Havana, Cuba, has issued his report on the Cuban Sugar Crops of 1921-22 and 1922-23, from which the following résumé is taken:

	CANE GROUND			
	Crop 1921-22 Arrobas	Crop 1922-23 Arrobas	Difference Arrobas	Per Cent
Pinar del Rio.....	95,143,354	88,561,746	— 6,581,608	7.43
Havana.....	235,530,170	194,268,084	— 41,262,086	21.33
Matanzas.....	394,055,228	347,511,007	— 46,544,221	13.39
Santa Clara.....	641,817,175	564,389,257	— 77,427,918	13.71
Camaguey.....	700,717,456	866,668,724	+165,951,268	19.14
Oriente.....	1,044,448,391	720,936,822	— 283,511,569	10.40
Total.....	3,071,711,774	2,782,335,640	— 298,376,134	10.40
	SUGAR PRODUCED			
	Crop 1921-22 Arrobas	Crop 1922-23 Arrobas	Difference Arrobas	Per Cent
Pinar del Rio.....	10,916,143	10,905,323	— 10,820	0.99
Havana.....	27,805,307	23,214,293	— 4,591,014	19.77
Matanzas.....	45,034,767	39,612,146	— 5,422,621	13.68
Santa Clara.....	75,435,743	66,055,492	— 9,380,251	14.20
Camaguey.....	85,116,238	99,555,160	+14,438,922	14.50
Oriente.....	118,324,174	87,600,141	— 30,724,033	35.07
Total.....	362,632,372	326,942,555	— 35,689,817	10.91
	MOLASSES			
	Crop 1921-22 Gallons	Crop 1922-23 Gallons	Difference Gallons	Per Cent
Pinar del Rio.....	6,512,034	5,500,151	— 1,011,883	18.39
Havana.....	13,856,642	11,697,091	— 2,159,551	18.46
Matanzas.....	26,595,421	23,592,396	— 3,003,025	12.72
Santa Clara.....	38,406,694	38,031,668	— 375,026	0.98
Camaguey.....	45,308,813	62,631,926	+17,201,113	27.46
Oriente.....	68,856,158	50,715,992	— 18,140,166	35.76
Total.....	199,657,762	192,169,224	— 7,488,538	3.89

Sugar Production in Russia, 1924-25

The production of sugar in Russia from the harvest of 1924 was originally expected to reach 30,000,000 poods (1 pood equals 36.1 pounds), but weather conditions immediately after planting seriously impaired the plantations and greatly reduced the yield. The combined effects of intense heat followed by prolonged drought, with insect and other damages, reduced the area originally sown from 318,822 dessiatines to 272,958 dessiatines (1 dessiatine equals 2.7 acres), or 14.3 per cent. The original planted area was divided between that on which land, seed, labor, and money were furnished by the factories (39,057 dessiatines), and that of individual planters who raised crops on shares, sometimes on factory-owned land.

It is now possible to estimate the total crop of beets to be expected from the above reduced acreage. The Sugar Trust reports for its plantations a total yield of 17,033,000 berkovets (1 berkovet equals 433.3 pounds), an average of 62.3 berkovets per dessiatine.

The saccharine content of the beets is low as compared with last year, being 62 pounds from 1 berkovet instead of 64.9 pounds. The net output of sugar can be estimated at 26,500,000 poods as a minimum. From 15 rented factories there should be a further 3,600,000 poods, giving a total marketable quantity of 31,500,000 poods of sugar.

This yield is a considerable increase over the production of the past few years, comparative figures being as follows:—

From crop of:	Poods of Sugar
1921.....	3,063,818
1922.....	12,225,955
1923.....	23,022,961
1924.....	31,500,000

The beets will be treated in 107 factories operated by the Sugar Trust, and in 15 plants rented by the trust. Necessary repairs, requiring considerable outlay, have been made, supplies of fuel and limestone have been arranged for, and an ample supply of bags, of which in previous years there was a shortage, has been ordered. It is expected that 60,000 men will be required for the work, drawn as usual from the peasants living in the vicinity of the sugar factories.

German Sugar Exhibition

It is reported that on the occasion of the seventy-fifth anniversary of the foundation of the German Sugar Association the German Sugar Congress in 1925 will be held at Magdeburg, the cradle of the German sugar industry and still its dominating center. At the same time, the Sugar Association and the Association of German Technicians will arrange the first German sugar exhibition, which will include exhibits relating to beet cultivation, sugar production, factory equipment, packing materials, safety devices, sugar products and by-products. The exhibits will be supplemented by popular lectures and educational films. The exhibition will open May 23 and will continue two weeks. Persons interested in the exhibition are requested to communicate with Carl Artur Schallehn, Magdeburg, Blucherstrabe 3.

Ireland to Develop a Sugar Industry

It is reported that a group of land owners and farmers in the Cobh Consular District, Ireland, known as the North Cork Industrial Development Committee, are considering a scheme for the establishment of a beet sugar industry. It is understood that European financiers are interested in the project and that the Irish Free State will be asked to continue the present duty on sugar or to grant a subsidy to the industry if the plan is carried through, according to a report to the Department of Commerce by Vice-Consul Loy Henderson at Cobh.

Mosaic Commission at Work

The commission appointed by the Department of Agriculture to study the mosaic disease has completed a preliminary survey of conditions in Matanzas Province, where an investigation was conducted on several colonias whose cane plantings are partially infected. The commission will make a detailed report to Secretary Betancourt accompanied by recommendations for the control of the disease.

Italy's Sugar Expansion

Italy is outdistancing every country in Europe in the increase of sugar production since pre-war times. Every country on the Continent that participated in the war has had a hard time recovering its former position. Belgium has made a most rapid recovery, but Italy has more than doubled her production. In 1914-15 she operated 30 factories, had an area of 42,318 hectares, produced 1,319,140 tons of beets and 146,888 tons of sugar. Her estimates for 1923-24 show that 39 factories will be at work to grind up 93,000 hectares with a tonnage of 2,806,477 and a possible sugar output of 312,091 tons. In 1917-18 her output was only 92,527 tons of sugar.

The planted area in beets this spring was 125,000 hectares but the early bad weather reduced the area at once. The seed had to be planted much later and the campaign this fall is nearly a month behind the regular schedule. The manufacturers worked assiduously to have the government take down the import tax wall and the government yielded by decreeing on May 22 that this should come to pass. During the summer months contracts were made for September delivery and as Italy is favoured with a climate that puts her campaign ahead of most northern countries she was able to get prices that were favourable.

With the coming of the first figures of the campaign, however, from various factories that began their run early, it was discovered that the sugar extraction was 3 per cent. below that of last year largely due to the excessive rains that hindered the beets from storing up the usual quantities of sugar. As a rule Italy does not suffer along this line but the summer of 1924 was unusual in its lack of sunshine and the production may be lower in the end. It has been suggested by some that the plan used in Holland be followed. Sugar is exported with a profit and then foreign sugars imported. Italy up to now has been obliged to procure sugar in foreign markets to supply her own needs, but Italy's sugar extraction has not been as large as has been desired. In 1923-24 it was 11.1 per cent.; in 1922-23 it was 11.6 per cent. and in

1921-22 it was 10.2 per cent. Most of the manufacturers feel therefore that it is better to keep much of the sugar at home without adding more loss to a situation that is not up to its possibilities.

That there has been an unusual and powerful urge to extend the sugar industry, has been patent to all and the conservatives have warned their co-workers that the rate of progress might exceed the speed limit, the falling prices of sugar, the increased production on the Continent and other concomitant forces necessary to be reckoned with in the future. In the agricultural field hemp is coming to the fore and is going to give sugar beets a race in various sections of the land and unless sugar prices remain rather stable or rise, it is predicted that Italy has about reached her highest production for some years to come.

Nevertheless, the manufacturers are not lagging behind. They are doing just what the German sugar makers have done ever since the close of the war and while darkness and uncertainty reigned supreme. They have been delving into the deepest secrets of sugar manufacture, working out newer and better ways of sugar extraction. The capacity of the factories is being enlarged. The average daily capacity of the Italian factory is 8,000 quintals of beets, Pontelongo in the province of Padua has the largest grinding capacity, running to 17,000 quintals and this is to be enlarged to 27,000 quintals. The sugar factory at Bonora in Ferrara has just introduced the Steffens apparatus and a new diffusion battery and others are making similar improvements. There may be limitations to the Italian industry, but at heart it is sound, has ample financial backing and faces the future "in calm confidence, expectant of good."—[From *The Louisiana Planter and Sugar Manufacturer*].

Cardenas Port Improvements

President Zayas signed on December 2, 1924, a law passed by the Cuban Congress, which provides an appropriation of over two million dollars for dredging the port of Cardenas and other public works.

Artificial Sugar Production

REFINING AND DISTRIBUTION UNLIKELY TO
BE AFFECTED BY ITS SUCCESS

By Geoffrey Fairrie

From time to time the possibilities of making sugar artificially are discussed in the press. The artificial production of certain sugars has been achieved, the most recent experiment being that of Professor E. C. C. Baly of Liverpool. It is well known that carbon dioxide and water are combined in the leaves of plants by the influence of sunlight through chlorophyll, which is the coloring matter of these leaves. Acting upon this, Professor Baly subjected a solution containing chlorophyll and carbon dioxide gas to the action of a beam of light, and one of the products obtained from this experiment is stated to have been glucose, which is a practically uncrystallizable sugar and has but 60 per cent of the sweetening power of sucrose. The separation of glucose from the other products is said to be a very difficult matter.

BALY'S WORK NOT THE FIRST

It is an ascertained fact that part of the sugar combined by the leaves of the maple and palm trees is converted into cellulose and forms part of the season's growth of the tree. Cellulose is the main constituent of wood, and by boiling shavings or sawdust in an acid solution cellulose breaks down into a number of products, one of which is glucose. In this case also the separation of the glucose from the other products is extremely difficult, and so far users of this process have been content to ferment the glucose and distill alcohol therefrom. Actually this making of glucose from cellulose is not an artificial production of sugar.

Professor Baly's experiment is not the first occasion on which sugar has been produced artificially. In 1890 Emil Fischer, a celebrated German chemist, succeeded in producing glucose from formaldehyde by a long and complicated chemical process. These experiments are of high academic value, but do not affect the production of sugar on a commercial scale, and it can be definitely stated that sucrose has never been produced except by nature's labora-

tories, which are the cells in the leaves of plants.

Up to the present the statements in the press have been confined to a brief description of Professor Baly's excellent work, and to speculative observations concerning the possibility, and even the cost, of producing sugar artificially on a commercial scale. The effect of the possible artificial production of sugar commercially upon the refining and distributing industries does not appear to have been commented upon.

REFINERS WILL STILL BE NEEDED

Actually, we can never get beyond the fact that carbon dioxide and water are the only elements which can be combined to give sugar; therefore it does not matter much to the refiners whether the cane and the beet are the combiners, or whether some process be devised by which these elements can be combined at the refinery. It is unlikely that any method of artificially making sugar will ever be invented which will enable it to be produced in crystals of the desired size, or as granulated or cubes, without the use of intermediate processes such as are found in refineries today.

Apart from being purifiers and sterilizers, the refiners are distributors; for it is they who put the sugar into bags or cases, keep large stocks in their warehouses, send it to depots all over the country, and finally direct the delivery of individual consignments to the customers. It is the grocers who receive the sugar, weigh it out into small packages, and receive the housewife's money over the counter. Therefore, whatever method may be used to combine the only elements able to produce sugar, the distribution system must remain the same as it is today.

If some apparatus like a wireless receiving set could be devised, which would enable the householder to produce sugar from air and water in his own back garden, then the job of the refiner and all who earn a living in the producing, purifying, selling, and distributing of sugar would indeed be in jeopardy.—*Facts About Sugar.*

Crop Estimate

Messrs. Guma-Mejer estimate the new crop at 4,724,714 tons. The Cuba Sugar Club estimates the crop at 4,735,531 tons.

Insuring Cane Against Frost Damage

RATES FOR 1924-25 SEASON IN LOUISIANA— HOW INSURANCE AFFORDS PROTECTION TO MILL AND PLANTER

Announcement of the new sugar cane cover and insurance rates for the season 1924-25 in Louisiana recalls with timely pertinence the attention of planters to the fact that it is now possible for them to obtain insurance against damage to their cane crops by frost. Several of the fire insurance companies have been developing this form of crop protection in connection with similar insurance on citrus fruits and fruit trees, and frost insurance was written to a considerable extent in Louisiana last year.

TWOFOLD PROTECTION GIVEN

According to the terms of the contracts offered this year, the insurance must become effective by November 10th. As explained by an insurance man who has been devoting his time for several years to developing this and similar forms of covers, the protection afforded by the sugar cane contract is twofold.

(1) The planter may insure against loss of expected tonnage in the field. When a stand of cane is damaged by frost it may be necessary to lower the knives several joints in order to make the cane shipped to the mill acceptable. The tonnage of the joints so topped may amount to a considerable fraction of the total crop. If severely damaged, the total shipment may be rejected by the mill as unsound, or may require to be topped further—which entails an additional expense. During the last severe freeze certain mills, after rejecting shipments of cane as testing unsound under the definitions of the cane contract, ground the damaged cane under special agreement with the planter—at, of course, a greatly reduced price. The planter may by this insurance make certain that he shall receive at least the full cost of production and delivery of his cane to the mill on every ton of his entire crop.

It is to be noted that the insurance is based on cost of production plus cost of delivery to the mill, and not on selling price. Selling price cannot be used as a basis for the reason that at the time the insurance is written, while the cane is still in the field, the selling price is impossible to determine,

being fixed by the market quotation for raw sugar at the dates of shipments in the future. Since, however, the insurance is written after the making of the cane is completed, the planter knows approximately the cost of production, and this figure can be insured. The cost of cutting the cane and hauling it to the mill has yet to be incurred, of course, but this can also be approximated closely.

PROTECTION FOR THE MILL

(2) At almost every factory in Louisiana cane is purchased at an agreed amount per ton, without specification as to sucrose content or acidity. While the mill can, of course, refuse to accept badly damaged cane, it is generally the case that cane even slightly frosted shows either a distinct loss of sucrose or an increase above normal of acidity. A loss is thereby experienced either on account of the increased cost of manufacture or the decreased output of sugar, or both. The mill owner, by insurance, can make certain of reimbursement should the cane fall below the standard of quality of the normal run of cane ground previous to the freeze.

Insurance authorities claim that this insurance is of particular value to the mill owning a considerable cane acreage, since the mill can protect itself against loss in both its field and its manufacturing departments. Certain mills which purchase, the greater part of their cane also look with favor on this insurance to cover two interests: their own and the planter's, charging the planter a portion of the cost of insurance in payment for protection of his interest.

RATES FOR 1924-25

The rates to be charged for the 1924-25 season's cover in Louisiana and the zones to which they apply are as follows:

Class A, 3 per cent.—St. Mary, Terrebonne, Lafourche (south of Southern Pacific R.R.), Plaquemines.

Class B, 3½ per cent.—Lafourche (north of the Southern Pacific R.R.), St. John, St. Charles, St. James.

Class C, 4 per cent.—Vermilion, Iberia, Assumption.

Class D, 4½ per cent.—Ascension, East Baton Rouge, Iberville (south of and including Plaquemine), St. Martin, Lafayette.

Class E, 5½ per cent.—Iberville (north of Plaquemine), West Baton Rouge.

Class F, 6½ per cent.—St. Landry, Pointe Coupee, West Feliciana.

Class G, 7½ per cent.—Rapides, Avoyelles.

Insurance under these contracts runs until January 31, 1925. It does not become effective until the premium has been actually paid to the agent. It does not apply to cane left standing on or after noon of December 25, nor to loss to roots or rat-toons, nor for loss of tonnage to windrowed cane from evaporation. The protection afforded is against: (1) loss of tonnage in the field; (2) loss of sucrose content or increase of acidity, as found by mill laboratory test.

Insurance may be written per ton, for the actual cost of production per ton plus \$1, which is assumed to be the cost of cutting and hauling; if a planter estimates his crop at 1,500 tons and his expenses have amounted to \$7,500, his apparent cost of production is \$5 a ton and his cane may be insured for \$6 a ton. The planter is not, of course, compelled to insure for the maximum amount, but it is required that 100 per cent of the tonnage of an insured acreage be insured. This may be made clearer by example: if a planter owns 100 acres on which it is estimated that the cane amounts to 1,500 tons at a production cost of \$5 a ton, he may not insure this cane for \$3,000 unless it is stipulated that the maximum amount collectible per ton in case of loss is \$2.

The planter need not insure his entire crop. If he expects to harvest his stubble cane early, he may insure only his plant cane. Or he may insure only a part of his plant cane, but the cane so insured must be identified exactly by location and acreage at the time the policy is written. A planter having fifty acres of cane may not take out insurance on an unspecified ten acres with the intention of applying it to the last ten acres left standing in the course of the harvest.

Adjustment under this form of policy is *proportionate* and not specific. The actual amount of insurance for which the policy is written, and for which the assured pays premium, is based on the *estimate* of the tonnage which the acreage covered will produce. If a loss occurs, the actual tonnage is ascertained. The amount harvested as sound cane is learned from the mill records. The tonnage of cane abandoned in the field is calculated at the average yield per acre of similar cane previously cut and weighed.

The tonnage lost by topping frosted cane is estimated by weighing the tops in an average acre, after burning off the leaves.

ACTUAL AMOUNT OF INSURANCE

There will practically always be a discrepancy between the estimated and the actual tonnage of a crop, therefore the actual amount of insurance per ton on which the adjustment is made is determined by dividing the total insurance by the actual tonnage, arrived at as above. For instance, a planter estimates his crop at 1,000 tons. He insures it for \$6 a ton and a policy is written for \$6,000. A frost occurs by which 600 tons are destroyed. It is found that the actual tonnage is 800 instead of 1,000 tons. It would be manifestly unfair to pay this planter only at the rate of \$6 a ton, for in that case he would have paid premium for over-insurance of \$1,200 on which there was no possibility of collecting. The adjustment would be made as follows: 600 tons (the amount of cane destroyed) is three-fourths of 800, therefore he receives three-fourths of the total insurance, or \$4,500. This would be at the rate of \$7.50 per ton, since the assured has paid for that amount of cover.

If, however, the total crop is found to be 1,200 tons, the assured is not entitled to collect at the rate of \$6 a ton for the cane destroyed, since he has not paid premium for insurance at that rate on 1,200 tons. The adjustment would then be: 600 equals one-half of a total crop of 1,200 tons; assured receives one-half of \$6,000, or \$3,000.

AN EXAMPLE OF ADJUSTMENT

To convey a complete idea of the working of this form of insurance a supposititious example of adjustment may be given. Say a planter has 1,000 acres of cane which he contracts to sell to a mill. By the resurvey of his crop early in October the probable tonnage is agreed to be 15,000 tons. His cane contract calls for delivery of 250 tons daily for sixty days at a price of \$1 per ton for each cent per pound fetched by raw sugar according to the official quotations. His books show that labor, fertilizer and other items in making the crop have cost \$75,000, and he estimates the cost of cutting and hauling the cane at \$1 a ton. His policy is therefore written for \$90,000.

A freeze occurs November 4 and the shipments of the next four days are refused by the mill as not testing up to the standard for sound cane. He cuts his cane back considerably and his shipments from November 9 to 16 are accepted. The weather following the freeze is unfavorable and it is found that the next 3,000 tons of cane cut and shipped do not test sound, but they are ground under a special contract at \$4 a ton. The balance of the crop, 200 acres, is abandoned. The official average quotation for raw sugar for the week of November 4 was 6 cents a pound.

ADJUSTMENT

	Acres	Tons
Shipments Oct. 15-Nov. 4.....	300	5,000
Shipments Nov. 9-16.....	200	2,000
	500	7,000
(Sound cane, no claim for loss; recorded to account fully for insured acreage. On these shipments full price was received: 7,000 tons at \$6, or \$42,000.)		
Shipments Nov. 5-8, rejected..	70	1,000
Shipments after Nov. 16, ground under special contract.....	230	3,000
Abandoned.....	200	3,000
On accepted tonnage Nov. 9-16 from 200 acres tops cut back averaged 5 tons per acre...		1,000
	1,000	15,000
Expected price—		
8,000 tons at \$6.....		\$48,000
Actual price—		
1,000 tons, rejected.....		.....
3,000 tons at \$4.....		\$12,000
3,000 tons, abandoned.....		.....
1,000 tons, cut back.....		.....
		\$12,000
Difference between expected and actual price.....		\$36,000
Insurance pays 36/48 or ¾ of actual insurance per ton applying to damaged crop.		

In this case the actual tonnage is found to correspond exactly with that estimated, therefore the insurance per ton is \$6 and the insurance paid is \$4.50 a ton on 8,000 tons, or \$36,000. Had the actual tonnage been found to be, say, 18,000 tons, then the insurance per ton would have been \$90,000 divided by 18,000, or \$5 a ton, and the insurance would have paid ¾ of \$5 or \$3.75 a ton, which for 8,000 tons would have been \$30,000. Had the actual tonnage been 12,000 tons, the insurance per ton would

have been \$7.50, which would have paid \$5.625 per ton or, on 8,000 tons, \$45,000.—*Facts about Sugar.*

Caracas Sugar Refinancing

Plans for the refinancing of the Caracas Sugar Company will probably be submitted to the stockholders some time soon. While reports have been in circulation at various times during the past several months that such a step was contemplated, until now the matter has not been put in shape for definite action. The physical condition of the company's properties and its prospects are said to be excellent, but it is stated that the company was originally undercapitalized, which has resulted in the accumulation of a comparatively large indebtedness. The refinancing would take care of this, it is believed, and would place the property on a more sound basis. Edwin F. Atkins and Robert Atkins both have extensive holdings in Caracas.

A special meeting of the stockholders of the company has been called for January 19 at Havana to act on the recommendations of the board of directors for refinancing. These include reduction of the par value of the capital stock from \$50 to \$10 a share and authorizing the issue of 200,000 additional shares of this value, making the total common stock \$3,000,000 in 300,000 shares, and issuing \$2,000,000 of 8 per cent cumulative preferred stock of \$100 par value, to be redeemable at \$110. The present issue of bonds would be retired. These measures are expected to relieve the company from deficit and from the largest items of current liabilities and make possible the funding of the remaining indebtedness in the near future.

Russian Refinery Opens

According to recent reports, the Blagoyev refinery, formerly known as the Stepanov Company refinery at Odessa, Russia, which has been closed since 1916, started operations about the middle of September. This is one of the largest refineries in the Ukraine, where 82 per cent of the total sugar beet acreage in Russia is located.

Estimate of the Sugar Crop of Cuba of 1924-1925

Bags 320 lbs. Tons 2240 lbs.

MANTANZAS		CARDENAS		HAVANA	
	Bags		Bags		Bags
Gómez Mena.....	300,000	España.....	440,000	Toledo.....	360,000
Conchita..... (C.C.)	300,000	Alava..... (C.C.)	300,000	El Pilar.....	225,000
Cuba.....	190,000	Mercedes..... (C.C.)	290,000	Providencia.....	190,000
San Antonio.....	190,000	Tinguaro..... (C.A.)	250,000	La Julia..... (C.C.)	175,000
Rosario.....	190,000	Covadonga.....	190,000	San Cristóbal.....	150,000
Hershey.....	190,000	Guipúzcoa.....	180,000	Mercedita..... (C.A.)	140,000
Amistad.....	160,000	Soledad..... (C.C.)	175,000	Ntra. Sra. del Car-	
Santa Amalia.....	140,000	Washington.....	170,000	men.....	140,000
Jesús María.....	115,000	Santa Gertrudis		Andorra.....	125,000
Santa Rita.....	100,000	(C.C.)	170,000	Mercedita (Pascual)	120,000
Australia.....	100,000	Por Fuerza.....	150,000	San Ramón.....	120,000
Josefita.....	92,000	Araujo.....	130,000	Orozco.....	105,000
Carolina.....	90,000	Dos Rosas.....	60,000	Habana.....	100,000
Flora.....	90,000	San Vicente.....	60,000	La Francia.....	100,000
Triunfo.....	80,000	Dolores.....	50,000	Portugalete.....	95,000
San Ignacio.....	80,000	Dulce Nombre.....	45,000	Nombre de Dios....	80,000
Santo Domingo.....	80,000			Niagara.....	75,000
Unión.....	80,000	15 Centrales....	2,660,000	Galope.....	70,000
Límones.....	60,000			Occidente.....	45,000
Colonos de Nueva		CIENTFUEGOS		Bahía Honda.....	45,000
Paz.....	40,000		Bags	Puerto.....	33,000
Elena.....	14,000	Caracas.....	275,000		
Porvenir.....	14,000	Hormiguero.....	250,000	20 Centrales....	2,493,000
22 Centrales....	2,695,000	Andréta.....	180,000		
		San Agustín.....	180,000	CAIBARIEN	
SAGUA		Perseverancia (C.C.)	175,000		Bags
	Bags	Constancia... (C.A.)	175,000	Punta Alegre. (P.A.)	450,000
Santa Teresa.....	210,000	Santa Catalina.....	140,000	Narcisa.....	290,000
Nazábal.....	180,000	María Victoria.....	130,000	Vitoria.....	175,000
San Isidro.....	175,000	Santa María.....	125,000	San Agustín.....	160,000
Santa Lutgarda.....	170,000	Santa Rosa.....	120,000	San José.....	150,000
Constancia.....	160,000	Soledad.....	120,000	Fe.....	140,000
Resulta.....	150,000	San Francisco.....	100,000	Zaza.....	135,000
Ramona.....	130,000	Ferrer.....	100,000	Reforma.....	120,000
Ulacia.....	120,000	Parque Alto.....	90,000	Carmita.....	120,000
Resolución.....	100,000	Dos Hermanas.....	90,000	Adela.....	100,000
Purio.....	100,000	Manuelita.....	90,000	Fidencia.....	90,000
Unidad..... (C.A.)	95,000	Portugalete.....	85,000	María Luisa.....	80,000
Macagua.....	65,000	Cienegueta.....	85,000	San Pablo.....	40,000
12 Centrales....	1,655,000	Pastora.....	60,000	Nela.....	30,000
				14 Centrales.....	2,080,000
19 Centrales....	2,570,000				
PUERTO TARAFA		SANTIAGO DE CUBA		NUEVITAS	
	Bags		Bags		Bags
Morón... (E.C.S.C.)	660,000	Palma.....	285,000	Elia.....	440,000
Cunagua.....	550,000	América.....	185,000	Jatibonico.....	425,000
Jaronú.....	550,000	Oriente.....	160,000	Estrella.....	300,000
Violeta... (E.C.S.C.)	460,000	Hatillo.....	120,000	Tuinucú.....	275,000
Agramonte.....	400,000	Santa Ana.....	110,000	Pilar.....	195,000
Lugareño. (E.C.S.C.)	360,000	Borjita.....	90,000	Najasa.....	150,000
Florida..... (P.A.)	345,000	Unión.....	80,000	Camagüey.....	145,000
Vertientes.....	345,000	7 Centrales....	1,030,000	La Vega.....	120,000
Senado.....	300,000			San Antonio.....	70,000
Céspedes.....	300,000	GUANTANAMO		Agabama.....	50,000
Ciego de Avila... 150,000			Bags	Siboney..... (1)	40,000
Velasco		Almeida.....	220,000	11 Centrales....	2,210,000
(E.C.S.C.) (1)	150,000	Ermita.....	150,000		
12 Centrales....	4,570,000	Los Caños.... (G.S.)	150,000	ZAZA	
		Esperanza.....	140,000		Bags
PUERTO PADRE		Soledad..... (G.S.)	125,000	Natividad.....	60,000
	Bags	San Antonio.....	75,000	Sta. Ana de los	
Delicias..... (C.A.)	900,000	Romelie.....	60,000	Mapos.....	10,000
Chaparra..... (C.A.)	650,000	Santa Cecilia.....	50,000	2 Centrales....	70,000
2 Centrales....	1,550,000	8 Centrales....	970,000		

ANTILLA		MANZANILLO		JUCARO	
	<i>Bags</i>		<i>Bags</i>		<i>Bags</i>
Preston.....	495,000	Niquero.....	240,000	Stewart.. (E.C.S.C.)	510,000
Miranda.....	450,000	Isabel.....	225,000	Baraguá.... (P.A.)	500,000
Jobabo.....	335,000	Río Cauto.....	190,000	Jagüeyal.. (E.C.S.C.)	375,000
Alto Cedro.....	230,000	Mabay.....	100,000	Adelaida.....	300,000
Baguanos.....	210,000	Cape Cruz.....	100,000	Algodones.....	220,000
Cupey.....	180,000	Salvador.....	80,000	Patria.....	150,000
Tacajó.....	170,000	Dos Amigos.....	60,000	6 Centrals.....	2,055,000
San Germán.....	150,000	Teresa.....	60,000	SANTA CRUZ DEL SUR	
Presidente.....	100,000	Soña.....	60,000		<i>Bags</i>
Cacocum.....	60,000	Estrada Palma... (1)	30,000	Francisco.....	390,000
Maceo.....	60,000	San Ramón.....	15,000	Macareño.....	140,000
11 Centrals....	2,440,000	11 Centrals....	1,160,000	2 Centrals.....	530,000
MANATI		BANES		CASILDA (TRINIDAD)	
	<i>Bags</i>		<i>Bags</i>		<i>Bags</i>
Manatí.....	550,000	Boston.....	390,000	Santa Isabel.....	130,000
1 Central.....	550,000	1 Central.....	390,000	Trinidad.... (P.A.)	95,000
GIBARA		TANAMO		2 Centrals.....	225,000
	<i>Bags</i>		<i>Bags</i>		
Santa Lucía.....	200,000	Tánamo.....	240,000		
1 Central.....	200,000	1 Central.....	240,000		

NOTES

The above is a conservative estimate of the crop, taking as a basis the amount of cane existing in Cuba and the prevalence of normal labor and weather conditions during the harvesting season.

(1) FIRST CROP OF THIS CENTRAL

(C.C.)	Central of Cuba Cane Sugar Corporation.
(E.C.S.C.)	Central of Eastern Cuba Sugar Corporation.
(C.A.)	Central of Cuban-American Sugar Company.
(G.S.)	Central of Guantánamo Sugar Co.
(P.A.)	Central of Punta Alegre Sugar Co.

<i>Crops</i>	<i>Tons</i>	<i>Crops</i>	<i>Tons</i>	<i>Crops</i>	<i>Tons</i>
1909—1910.....	1,804,349	1914—1915.....	2,582,845	1919—1920.....	3,728,975
1910—1911.....	1,480,217	1915—1916.....	3,006,624	1920—1921.....	3,935,433
1911—1912.....	1,893,687	1916—1917.....	3,019,936	1921—1922.....	3,996,189
1912—1913.....	2,429,240	1917—1918.....	3,444,605	1922—1923.....	3,601,605
1913—1914.....	2,596,567	1918—1919.....	3,967,094	1923—1924.....	4,052,547

RECAPITULATION

<i>Ports</i>	<i>Centrals</i>	<i>Bags</i>	
Matanzas.....	22	2,695,000	SIX PORTS 2,021,857 Tons.
Cárdenas.....	15	2,660,000	
Cienfuegos.....	19	2,570,000	
Havana.....	20	2,493,000	
Caibarién.....	14	2,080,000	
Sagua.....	12	1,655,000	
	102	14,153,000	
Puerto Tarafa.....	12	4,570,000	OUT PORTS 2,598,571 Tons.
Antilla.....	11	2,440,000	
Nuevitas.....	11	2,210,000	
Júcaro.....	6	2,055,000	
Puerto Padre.....	2	1,550,000	
Manzanillo.....	11	1,160,000	
Santiago de Cuba.....	7	1,030,000	
Guantánamo.....	8	970,000	
Manatí.....	1	550,000	
Sta. Cruz. del Sur.....	2	530,000	
Banes.....	1	390,000	
Tánamo.....	1	240,000	
Casilda (Trinidad).....	2	225,000	
Gibara.....	1	200,000	
Zaza.....	2	70,000	
	78	18,190,000	
Total.....	180	32,343,000	CROP: 4,620,428 Tons.

Havana, December 8, 1924.

H. A. HIMLEY

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated November 20, 1924. The period under review covered transition of the old crop to the new, and this naturally resulted in a decline. For a time, however, it was thought that the December quotation would continue quite firm and December sugars would continue to be saleable at 4c. c. & f. or above, but it happened that the production of new crop sugar in Cuba started up with considerable more rapidity than was expected. This increase in the production in Cuba allowed new crop Cuban sugars to be offered in competition with old crop sugars, and this resulted in a sharp decline.

At the time of our last report, Cubas were quoted at $4\frac{1}{8}$ c. c. & f. and the market continued quite strong, advancing steadily until $4\frac{3}{8}$ c. c. & f. was touched on December 4th. The possibility of obtaining as good a price as $4\frac{3}{8}$ c. c. & f. was one of the incentives to the Cuban factories to start grinding. From this point the market has steadily declined until 2-13/16c. c. & f. was quoted on December 27th. The market appears steady at this basis, as there are only small supplies of sugar in the hands of our refiners, and there is a possibility of improvement from this figure for deliveries during first half January.

The United Kingdom refiners have been quite interested in Cuban sugars, particularly new crop, and have devoted most of their purchases to February/March shipment, the larger part of the transactions being at about the equivalent of $2\frac{3}{4}$ c. c. & f. New York. It appears that as far as Continental sugars are concerned, the greater portion has been made into white sugars, and this leaves a comparative scarcity of raw beet sugars which latter naturally interests the English refiners. The only country that has been a free seller of raw beet sugar is Poland, and England has purchased some raw beet sugar from this source. However, a recent cable from Germany announces that the Government has decided to release 100,000 tons of raw beet sugars for export, and probably some of these will be disposed of to England, although, as we understand it, the United Kingdom assesses a Reparations Tax of 26% against German imports. However, if these German beet sugars do not go directly to England, there may be a possibility of Holland taking the German beet sugars and shipping Holland raw beet to England.

REFINED.—The refiners having paid high prices for their raw sugar are, of course, very slow in declining their prices for refined, and hence the market has gone down slowly. At the time of our last report granulated sugar was quoted at 7.40c., while at present the quotation is 6.75c.

During the month of December there was a price war between cane and beet granulated sugar in the Middle West, due to local conditions, particularly as to the differential between cane and beet granulated. Beet granulated rapidly declined until 6c. seaboard basis was quoted and cane granulated sugar in that territory to 6.10c., but about the middle of December apparently some agreement was made and prices reverted somewhat from the low level, cane granulated now being quoted at 6.30c. and beet granulated at 6.20c. for Middle West territory.

Another interesting feature during the month has been the negotiations for the merger of the National Sugar Refining Co. and the American Sugar Refining Co. As far as the stockholders are concerned, the matter appears to be determined on, but it is necessary that the Attorney General of the United States give his permission to allow the proposed merger, owing to an injunction now being in force preventing the American Sugar Refining Co. from combining in any way with the National Sugar Refining Co. This matter is now pending in the U. S. Attorney General's office.

New York, N. Y., December 31, 1924.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York

Nuestra última revista estaba fechada el 20 de noviembre de 1924, y el período bajo revista comprendió la transición de la zafra antigua a la nueva zafra, y esto naturalmente resultó en una baja en el mercado. Sin embargo, por algún tiempo se creyó que la cotización de diciembre continuaría bastante firme y el azúcar de diciembre continuaría vendiéndose a 4c. costo y flete o a un precio más alto, pero sucedió que la producción del azúcar de la nueva zafra de Cuba empezó con mucha más rapidez de lo que se esperaba. Este aumento en la producción en Cuba hizo que el azúcar de la nueva zafra se ofreciera en competencia con azúcares de la antigua zafra, y esto dió por resultado una buena rebaja.

En ocasión de nuestra última reseña el azúcar de Cuba se cotizaba a $4\frac{1}{8}$ c. costo y flete y el mercado continuó bastante fuerte, subiendo con constancia hasta que se llegó a $4\frac{3}{8}$ c. costo y flete el 4 de diciembre. La posibilidad de conseguir un precio tan bueno como $4\frac{3}{8}$ c. costo y flete fué uno de los incentivos para que las fábricas de azúcar en Cuba empezaran la molienda. Desde este punto, el mercado ha bajado constantemente hasta cotizarse a 2.13/16c. costo y flete el 27 de diciembre. El mercado parece fijo a esta base, pues solamente hay pequeñas cantidades de azúcar en manos de los refinadores, y hay probabilidades de mejora de este precio para entregas durante la primera mitad de enero.

Los refinadores de la Gran Bretaña han estado bastante interesados en azúcares de Cuba, principalmente de la nueva zafra, y han dedicado la mayor parte de sus compras para embarques en febrero y marzo, la mayor parte de las transacciones siendo próximamente al equivalente de $2\frac{3}{4}$ c. costo y flete Nueva York. Parece que en lo que concierne a azúcar del continente europeo, la mayor parte se ha elaborado en azúcares blancos, y esto ocasiona comparativamente una escasez de azúcar crudo de remolacha, lo cual naturalmente interesa a los refinadores ingleses. El único país que ha sido un libre vendedor de azúcar de remolacha es la Polonia, y Inglaterra ha comprado algún azúcar crudo de remolacha de este origen. Sin embargo, un cablegrama reciente de Alemania anuncia que el Gobierno ha decidido dejar salir 100,000 toneladas de azúcar crudo de remolacha para la exportación, y probablemente alguna de este azúcar será para Inglaterra, aunque, según comprendemos, la Gran Bretaña impone una contribución de Reparación de 26% contra las importaciones de Alemania. Sin embargo, si dicho azúcar alemán de remolacha no va directamente a Inglaterra, hay probabilidad de que Holanda tome el azúcar alemán de remolacha y Holanda embarque a Inglaterra el azúcar crudo de remolacha.

Refinado.—Los refinadores habiendo pagado altos precios por su azúcar crudo, como es natural van despacio en bajar sus precios por el azúcar refinado, y de ahí que el mercado haya bajado paulatinamente. En ocasión de nuestra última reseña el azúcar granulado se cotizaba a 7.40c. mientras que al presente la cotización es 6.75c.

Durante el mes de diciembre hubo una lucha en el precio entre el azúcar de caña granulado y el azúcar de remolacha granulado en la parte central del Oeste, debido a causas locales, especialmente respecto al diferencial entre el azúcar de caña y de remolacha granulados. El azúcar de remolacha granulado bajó rápidamente hasta que se cotizó a 6c. bajo base de la costa marítima y el azúcar de caña granulado en ese territorio a 6.10c., pero como a mediados de diciembre al parecer se hizo algún arreglo y los precios recuperaron algo del precio bajo, cotizándose ahora el azúcar de caña granulado a 6.30c. y el de remolacha granulado a 6.20c. para el territorio central del Oeste.

Otro acontecimiento interesante durante el mes han sido las negociaciones para la unión de la National Sugar Refining Company y la American Sugar Refining Company. En lo que concierne a los accionistas, el asunto parece haberse determinado, pero es necesario que el Apoderado General de los Estados Unidos dé su permiso para

que se efectúe la propuesta unión, debido a una orden judicial ahora en vigor impidiendo a la American Sugar Refining Company que se una en modo alguno con la National Sugar Refining Company. Este asunto está ahora pendiente en la oficina del Apoderado General de los Estados Unidos.

Nueva York, diciembre 31 de 1924.

Mauritius Sugar Industry

Regarding the Mauritius sugar industry, the *West India Committee Circular* reports that according to the preliminary compilation of factory results, the sugar crop of the past season amounted to 203,000 metric tons, a reduction of 16 to 17 per cent from the normal, due to unfavorable weather conditions. The *Mauritius Almanac* estimates that of the total production, 98 per cent consisted of vesou sugar. The average extraction of sugar per cent cane was estimated at 10.47, this figure being lower than in most seasons.

The closing of two small factories leaves fifty factories operating in the island. A marked improvement in the housing and general style of the factories has been made in recent years. Attention has also been directed to the improvement of the quality of sugar produced. Several new processes have been tested; the Bach process has been introduced, and the use of phosphoric acid compounds has been extended. Sulphuring of syrup has proved successful and the Philippe filters are coming into favor.

An area of 173,000 acres was under cultivation at the close of 1922. This area can be extended only by increased transport and irrigation facilities. Immigration from India has been resumed as the result of an agreement with the Indian Government, and the labor situation is easier than formerly. The introduction of tractors and cultural implements has marked an epochal advance in the agriculture of Mauritius.

More French Sugar Factories

In France there will be 100 factories that will work up beets for the season 1924-25. Last year there were 95. The area sown to beets is 195,610 hectares or an increase of 26 per cent. The sugar output is placed at 610,000 tons.

Link-Belt New Malleable Iron Safety Collar

It is estimated that ten per cent of the power generated in the average industrial plant is wasted between the generator and the consuming machine. Attention to this loss of power has given rise to changes in power transmission equipment and the development of more efficient mechanical means.

One of the most recent developments along this line comes from the Link-Belt Company of Indianapolis, in the form of a Safety Collar, which is intended to maintain the proper alignment of such equipment as pulleys, shaft bearings, hangers, etc.

Great strength, toughness, durability, and light weight have all been incorporated in this new Malleable Iron Safety Collar, in addition to which, a new design which permits the collar to be split in two pieces, thus affording ready and economical installation or adjustment. This type of collar, however, is made also in the solid ring type, both types being accurately machine finished, assuring a tight fit and a pleasing appearance.

Exhaustive tests made with the Link-Belt Safety Collar have proven it to be impervious to shocks and strains encountered in heavy duty service. The material of which it is made possesses unusual wear and rust-resisting qualities. This extends its sphere of usefulness to installations where the atmospheric conditions contribute to rust or excessive abrasiveness. The set screw, by which the collar is firmly affixed to the shaft, is flange protected.

As with the recently perfected "Kex-Top" grease Cup, the Link-Belt Malleable Iron Safety Collar will be marketed through dealers located throughout the country, thereby assuring prompt service and shipment.

A Map of Cuba

Showing the location of all the active sugar plantations, engraved in colors on a high grade paper, with printed addendum giving sugar statistics to and including 1921-1922 production. Size 16 x 37 $\frac{5}{8}$. Price 50c. postpaid.

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ADVERTISING RATES ON APPLICATION

Vol. XXIII

February, 1925

No. 3

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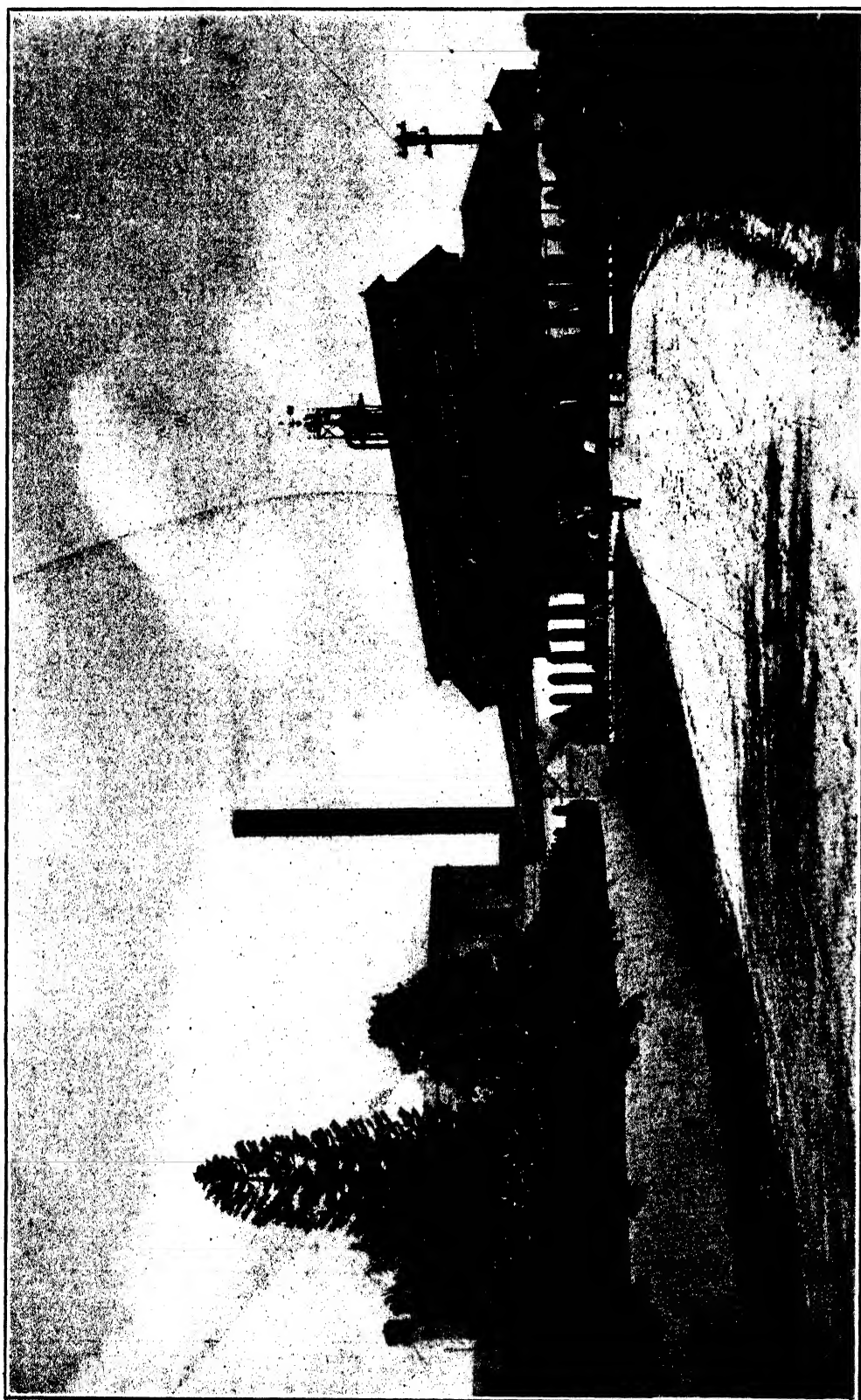
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Central Rosario—Aguacate, Cuba

Photo by American Photo Co.

THE CUBA REVIEW

“ALL ABOUT CUBA”

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VOLUME XXIII

February, 1925

NUMBER 3

Cuban Government Matters

Cuban Pension Law

In conformity with Decree No. 1180 of September 2, 1924, which complements the regulations for the execution of the law of October 9, 1923, the persons to be benefited by the pension and retirement law for railway workers in Cuba will be all those permanently employed in an administrative, professional, technical, labor, and caretaking capacity by any company—either directly or under contract with other organizations—in any of its offices, branches, properties, or services which it customarily renders individuals, institutions, societies, public or private enterprises, and the public in general. A 3 per cent discount is also to be made from the salaries of employees and laborers who work for a firm by contract, those who work temporarily for a contractor on any kind of construction work not coming within the terms of the law.

The General Retirement and Pension Fund Board was constituted July 14, 1924.

Ban on Importation of Fruits and Vegetables

As a precaution against the *ceratitis capitata*, *conotrachelus perseal*, and other flies injurious to agriculture, decree No.

1260 was published on September 20, 1924, prohibiting the importation into Cuba of fruit, vegetables, all kinds of potatoes, seeds, plants, or their parts, from Porto Rico, Jamaica, the Bermuda Islands, Mexico, Central and South America, and from the Hawaiian Islands, Australia, the Philippines, Spain, France, Italy, and other countries on the Mediterranean, with the exception of potatoes from the Canary Islands and fruits and vegetables from the United States, which will be rigorously inspected by the port officials before they are admitted.

National Maternity Competition

The sum of \$16,000 was assigned by the Cuban Government for the expenses of the annual National Maternity Competition and Better Babies Exhibition, which took place in November, 1924, under the auspices of the Department of Health and Charity, their object being to improve the national stock, induce mothers to nurse their children, and award prizes to the mothers who give the best care to their children and homes. This was one of the events in connection with the Pan American Sanitary Congress.



Signor Guglielmo Vivaldi

The Italian Minister

Signor Guglielmo Vivaldi, the Italian Minister has recently returned from an official visit to Hayti and Santo Domingo, being accredited to those countries as well as Cuba.

Cuba is indebted to Signor Vivaldi for bringing the "Nave Italia" to Havana with the Italian Floating Exposition on board. This exposition consisted of twenty-three departments showing Italy's chief industries. The exhibits, which were of great interest, included many Florentine treasures, operas, music, woodwork, perfumery; a picture of Dante enshrined in an alcove; Venetian glass, rare jewelry, scientific instruments; paintings, bronze and marble statuary, photogravures, arms, machinery and foodstuffs.

Postal Relations With Cuba

In hopes of bringing about better postal relations between the United States and Cuba, especially with respect to parcels post, Postmaster General New recently appointed a committee consisting of W. Irving Glover, Third Assistant Postmaster General, Chairman; Walter Riddell, Superintendent of the Railway Mail Service, and Edwin Sands, Superintendent of Foreign Mails, to go to Cuba to confer with postal officials of that government.

An agreement has now been arrived at, in which the weight limit on parcels post packages was raised to eleven pounds. A tentative plan has also been worked out to speed up the delivery of mail going to Cuba from the United States.

The parcels post convention is to go into effect July 1st, providing it is approved by

the United States Postmaster General and the Cuban Senate.

The tentative plans for expediting the delivery of incoming mails provide for Cuba to divide its postal system into twelve zones and for the United States mail to be sorted at Jacksonville, according to such zones, so that it will not have to be worked over in the already overcrowded post office in Havana. The mail will go direct from the Key West boat to trains bound for interior points in Cuba.

National Road Education Federation

As recommended by the Pan American Highway Commission which visited the United States in June, 1924, the National Road Education Federation was recently established in Havana for the purpose of educating the public in the advantages to be derived from good roads, Sr. Adolfo Arellano, delegate to the Pan American Highway Commission, having been elected president. Their motto will be: "Good roads—prosperity for everybody."

The American Chamber of Commerce of Cuba, having been requested to cooperate in this progressive movement, responded by appointing a good-roads committee. Mr. F. W. Borton, a member of this committee, has offered the use of his broadcasting station, 2BY, and station PWX will be asked by the committee to aid in disseminating good-roads propaganda. Stickers printed with the Good Roads motto will be pasted on the windshields of automobiles and other vehicles, and everyone interested in good roads is requested to incorporate this slogan in his local advertising.

Anti-Tuberculosis League

Under the auspices of Dr. Francisco Maria Fernandez an anti-tuberculosis league has been formed to combat the white plague and especially start an active campaign of protection of children against the disease. Secretary Porto, Health Director Lopez del Valle, and other prominent medical men, who form part of the movement have promised actively to push the campaign through the press and by obtaining official cooperation.

Havana Correspondence

The New Year with Its Hopes, Fears and Joys

The new year, at least as far as Cuba is concerned, has been ushered in with a mingling of emotions that range through the entire gamut of anxiety, hope, joy, fear, disappointment and almost despair—anxiety in regard to the strike epidemic that threatened to prevent grinding our 4,000,000-ton sugar crop, on which the economic life of the country depends; hope that the government would be able to find a satisfactory solution for the labor problem which during the past few years has, at frequent intervals, brought about an almost complete paralysis of all industries and public utilities, accompanied by walkouts, poisonings and assassinations.

Both of these consummations, so devoutly to be wished, have been accomplished. The strikes on railroads and in sugar plantations have been ended, freight is moving merrily and mills are grinding day and night. Energetic action on the part of the government brought satisfaction and joy to all throughout the Republic and the laborers, who, when left alone, have always been a happy and contented people, are glad to again have the semi-monthly pay-envelope waiting for them. The only dejected or disappointed individuals are the thirty-seven agitators who, expelled from Cuba, were thrown into jail as deserters from the army the moment they arrived in Spain.

Then, out of a clear sky, came a rumor that the price of sugar, which during the past year had held an average of four cents a pound, would go lower. And it did go lower—very much lower—until February and March quotations dropped to two and one-half cents. This means that only those mills of large capacity, located on deep-water harbors and otherwise advantageously situated, can hold their own. The older and smaller mills of the interior, of which there are over a hundred, will be unable to grind at a profit and will find it difficult to meet their obligations. The colonos, too, of these ingenios will suffer seriously since they, as practically equal partners, will be compelled to sink or swim with the owners of the mills.

The 180 centrals, in spite of this gloomy prospect, will probably all grind since they cannot well do otherwise. To stop would not only render it impossible for them to pay their bills, but would bring absolute ruin to the colonos, and very few centrals would care to attempt making a crop of sugar through mill administration alone, even if they had the capital to carry them through a season. The colono, to plant, cultivate, cut and deliver the cane to the mill, has been found absolutely essential to the sugar industry of Cuba.

The so-called law of supply and demand is a sorry puzzle to the cane grower of Cuba. "Our sugar is always good," he says, "and the people of the United States seem to like it, so what's at the bottom of this fall in price to the point where we can't afford to make it?" And then his attention is usually called to the tariff, and he is reminded that the beet growers of Utah want protection, and that Senator Smoot of Salt Lake City is in Washington to see that they get it. The only remedy seems to be to place a compensative tariff on American food products of which, with other commodities, we import a few hundred millions of dollars worth every year, raise less sugar, grow more feed and encourage home industries.

Just at present the Cuban people are worrying about another matter, one largely of sentiment, but sentiment plays a very important part in the complex of Cuban character. We refer to that much-advertised little Isle of Pines which, with a few hundred more islets, large and small—mostly small—forms part of a line of outposts some two hundred miles long, enclosing the great southern fishing banks, and protecting us against the cyclones of the Caribbean. This is only one of the many salt-water lagoons that surround much of the coast of Cuba.

Since the days of Columbus' second voyage of discovery in 1494, until 1901, no one ever questioned Cuba's sovereignty over the Isle of Pines. And no Cuban, knowing the history of his country, could conceive of any just claim against his right to continue

in the exercise of said sovereignty. True, the so-called Platt Amendment said something about the title of this lump of sand, swamp and marble being left to settlement by treaty, and the treaty was signed in good faith by the duly appointed representatives of both countries interested. Cuba was to continue, of course, in her right to the Isle of Pines, while her American Godmother was to convert Guantanamo into a naval base—which she did—and all was supposed to be well on the Potomac, as it was in the “Pearl of the Antilles.”

And then, all of a sudden, came a change over this period of Cuba’s dream. The press informed her that Mr. Borah, of Idaho, had become leader of the Committee on Foreign Relations of the Senate of the United States, and that Mr. Borah thought that Cuba had no legal or just claim to the Isle of Pines, and that the almost forgotten treaty would not, and should not, be ratified by the American Senate. In which case, of course, it would be declared American territory and Cuban sovereignty, after some three hundred years, would cease.

Then Cuba became alarmed and sent for Dr. Cosmo de la Torriente, her Ambassador, to come home and see what could be done. So Dr. Torriente came, and soon succeeded in getting resolutions passed by the National Federation of Economic Corporations, including the American Chamber of Commerce in Havana, which represents the sentiment of those who have lived here many years, and invested many millions in Cuba, urging the Senate of the United States to ratify the Isle of Pines treaty at once and thus put an end to the question of its sovereignty forever more. The resolution was passed and the text cabled to Washington, followed by Ambassador Torriente. Then, to be doubly assured, Cuba appealed to American Ambassador, Gen. Crowder.

All of this may seem trivial and irrelevant, but the old-time resident, or American business man will tell you, that on the day that Cuba’s flag is lowered over the Isle of Pines, if such a calamity should ever happen, opportunities for successful commercial enterprises, carried on by American citizens in this Republic, will cease. Sentiment may figure but little in business in the United States, but in this, or any other Latin-American country, it is almost vital to success.

TOURISTS.—The winter tourist season began earlier than usual and has rapidly increased since the holidays. This is due probably to the exceptional cold weather that seems to have afflicted much of the Mississippi valley and the middle west. Incoming steamers from New York, New Orleans and Florida have been crowded to capacity for weeks, and yet Havana seems to accommodate them without difficulty. This probably comes from the greatly increased capacity from a number of comparatively small but well equipped hotels that have been put up during the past year.

It seems rather strange that Cuba has never learned the art, nor the necessity of judicious or effective advertising. The transportation lines have done their share, and the American Chamber of Commerce has made some effort to attract the attention of travellers, but neither the Government nor the Municipality has done anything to induce the great mass of people who spend millions in travel every year to visit Cuba and enjoy its advantages as a winter resort. And yet those who do come on their own initiative, state frankly that there is no place on earth that offers greater attractions.

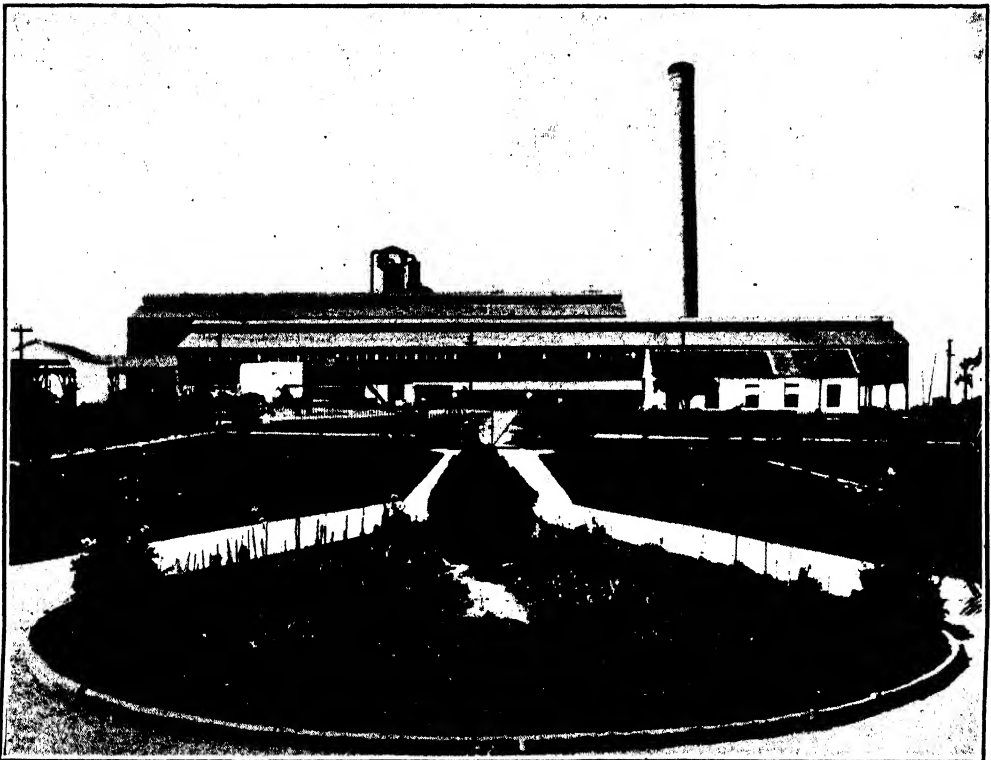
Here we have, not only a climate unexcelled, unless it be in Hawaii, or among the far-away Samoans of the Pacific, but every form of enchanting scenery—mountain, valley, plain, plateau, forest, water falls, beautiful days, land-locked harbors and lagoons, long sandy beaches, surf bathing and curious shells, stately royal palms and tropical verdure—green always with hundreds of miles of royal roads, hidden paths and lovers’ lanes, where one can ramble at liberty without fear of encountering snakes or other holdups.

Added to this, we have a wealth of interest in antiquities dating back to the days of Columbus and his steel-clad followers. At your very landing place you are confronted by the oldest occupied building in the Western Hemisphere, “La Fuerza,” begun in 1532 and used as a Royal residence by Fernando de Soto, who afterwards discovered the Mississippi River. You see the walls where his wife, the Doña Isabel, paced back

and forth through many weary months, looking and waiting for the husband lover who was never to return. There is almost no end to historical places that once played a vital part in the affairs of the old-time world.

OTHER THINGS.—Leaving the world of romance and coming down to cold, solid earth, the Department of Agriculture reports that we will soon have 350,000 barrels of new Cuban potatoes ready for shipment to the States. These are winter-grown potatoes from carefully selected seed, raised mostly on irrigated lands of the Güines district, some forty miles south of Havana. The flavor of the Cuban potato is delicious, and the skin, when baked, is almost as thin as tissue paper. In the markets of New York, Chicago and other Northern cities, they usually sell in March and April for \$8.00 a barrel. This would mean a tribute return of \$2,800,000.00.

TRANSPORTATION PROBLEMS.—Shipments of lima beans to the United States began in November, selling at \$12.00 per basket. Tomatoes brought from \$5.00 to \$8.00 per crate. These prices, of course, did not keep up long, but limas still command from \$4.00 to \$7.00 and tomatoes hold at from \$3.00 to \$5.00 for choice fruit. This means an excellent profit if the material arrives in good condition, but unfortunately, without proper refrigerating facilities en route, this cannot be assured. A grower from the San Cristobal district in Pinar del Rio lost four hundred crates of lima beans in December because the steamer could not give them refrigeration to New York. This resulted in a loss of over \$3,000,000 in three days. The Ward Line has refrigeration on her north-bound boats, but only for a limited number of crates each week. Shipments by rail over the P. & O. ferries furnish refrigeration at an additional cost of 40 cents per crate, but only carload lots are received. Unless steamers with sufficient refrigeration space are found, growers will be compelled to cooperate and charter cars for through north-bound freight. The weather is ideal for anything—autoing, golf and horse racing, but, without irrigation and refrigeration, it is rather hard on the vegetable growers.



Central Toledo—Marianao, Cuba

Reminiscences of the Sugar Industry during the Season of 1924

By George Reno

Looking back over the year recently terminated, it seems quite evident that those connected with Cuba's principal industry have much for which to be extremely grateful. Would that the coming or present season were as promising. Nature was kind during 1924 and all conditions co-operated for the production of a record crop of cane and the largest production of sugar ever harvested in Cuba. The increased acreage of land planted in cane was the direct result of the price at which sugar sold during the previous year—4.9 cents.

Carefully tabulated estimates compiled by the Department of Agriculture give the yield of sugar made in 1924 as 4,112,699 tons. The average price obtained was 4 cents, which places the value of the crop at \$368,497,830. During 1923 we made 3,645,967 tons—nearly a half million tons less sugar, but we sold the crop at 4.9 cents which gave us \$400,181,383. This meant an excellent profit to both colono and mill, hence the increase in cane planted. Last year's price of 4 cents, left us a satisfactory margin, but with the present price, varying from $2\frac{1}{2}$ to $2\frac{3}{4}$ cents, we have a different story.

This is one of the sad although natural features of the sugar industry in Cuba. A good price one year tempts cane growers to increase their acreage and this can be done only at a heavy expense. When the price drops both grower and grinder are up against it. If only some way could be found by which the price of sugar could be stabilized, or freed from the danger of speculation, all would be well and life in the tropics would be very rosy. But, unfortunately, the law of supply and demand is inexorable.

In 1917 Mr. Herbert Hoover, whom President Wilson had just appointed food administrator, invited the writer to Washington. He wanted to know what Cuba, in the emergency of war, could do towards feeding her own people and supplying the rest of the world with sugar. I gave him the desired information as accurately as possible.

"We can increase our sugar production in time to 5,000,000 tons if it should be necessary, but we cannot raise wheat or make flour, and we are always short on lard."

"Yes," Mr. Hoover replied, "all the world will soon be short on lard and every other kind of grease from my view of the situation." After an hour's conference he remarked with his characteristic positiveness: "Now you get back to Havana, Mr. Reno, and tell your people that we must have sugar and lots of it. No man knows how long this war is going to last and sugar contains more energy than any other known food. Europe has no time to make sugar; Java and the Orient are too far away; the beet industry of America is comparatively small. We can look only to Cuba. We are all in this mess, or soon will be, and your little Island Republic must make good. Tell your people to grow cane and make sugar—the more the better. We will try to keep you supplied with flour—for a while any way. Of lard, it is hard to promise. Try growing peanuts and soy beans. They both produce a fine substitute for lard and can be raised in four months, but we must look to you for sugar."

On the strength of my report to Gen. Eugenio Agramonte, then Secretary of Agriculture, the order went out to plant cane and make sugar, and as a result our production jumped from approximately two and a half million to over three million tons in the first year. In 1919 it had increased to over four million tons, selling at an average of 5 cents, which gave us a return of \$454,449,846.

Then in 1920 came the unfortunate boom—a combination of false reports, fear, speculation and greed which forced the price of sugar, for a few days, up to 23 cents, although the average price at which the crop sold was only 11 cents. This gave us for that year's crop \$1,005,451,080 to be followed by a slump in price down to 3.1 cents the next year, and a return of only \$273,197,696. The yield of 1922, with the price at 2.8 cents, sold for \$255,009,777 and that meant loss, since it was less than the cost

of production. The rise in price during '23 to 4.9 cents again encouraged increased acreage for '24, with the record crop of 4,112,669 tons as before stated, and we have sold the output for \$368,497,830, which left a fair margin of profit for all concerned.

But with the opening of the present year, we are confronted with a market many points below 3 cents, and this, for the majority of the mills and attendant colonos or cane growers, spells loss, and to some ruin. Only those ingenios, located on or very near harbors, in rich lands, with most approved modern machinery, can possibly make sugar and live with the commodity selling at 3 cents. Below that figure, all of the smaller and older mills, located in the interior of Santa Clara, Matanzas and the west will have to lose or go under. Of these, there are approximately one hundred.

The question is—what are we going to do about it? To attempt to control the output, to hold up the offerings of sugar on the market, is out of the question. We tried that experiment once with a sugar sales board, but it did not work. We have too many competitors scattered over the world. In Europe and the United States we have the sugar beet industry, in the Orient we have Java, India and the Philippines. On our west we have Hawaii and Mexico. Around the Caribbean we have Porto Rico, Santo Domingo, Jamaica and Central America. Even South America is increasing her sugar output.

Most of these countries, too, have labor in abundance and at infinitely lower wages. Sugar will soon be grown in Africa where a native will work all day for a string of glass beads or a small box of matches. And the cost of labor is the keynote of possible profit in the sugar industry. Fifty per cent of our labor in Cuba must be brought into the country from abroad and at a heavy expense to the colono and to the mill. Haitian labor, although the blacks are fairly strong and faithful, means the introduction of an element that we prefer to avoid.

Porto Rican labor, up to the present, has not been tried in Cuba and we fear will be lacking in endurance for field work, although I am told that arrangements are being made to send quite a number to Hawaii this winter to work in the cane fields of those Islands. Immigrants from northern Spain, Galicia and the Baltic provinces, although assimilating readily with the people of Cuba, do not like field work and quickly find places in Havana as servants, clerks in hardware houses, bodegas, etc.

The ideal agricultural labor for this country is beyond doubt the Canary Islander, although up to the present not many have come here. He is strong, intelligent and prefers country to city life. More than all, he is reliable, peaceful and devoted to his family, all of which qualifications make of him a desirable citizen. Those who are interested in the labor problem, especially as it may affect the future of the sugar industry and Cuba as a whole, will try to persuade the incoming administration to make a systematic effort towards inducing families from the Canary Islands to make their homes in Cuba, with suitable guarantee both from the Government and from the leading men of the sugar industry, that they will be cared for and their future assured.

We know also that they are comparatively immune from the baneful influence of labor agitators; that they are home makers and hence not easy converts to communism, which spells chaos in every industry where it finds a foothold, as it has in Mexico. In this connection it may be added, that if the strikes which started at the beginning of the grinding season last fall, had succeeded, this Island would have been bankrupt in ninety days.

But suitable labor for the cane fields, although of supreme importance, is a matter that can be arranged with the Government later on. To-day we are confronted by a more serious and pressing problem, the present low price of sugar. I have put the question, "What are you going to do about it?" up to a number of men who happen to be administrators of the largest sugar estates in Cuba. The replies in brief may be summed up as follows:

"When sugar is down below the cost of production, as it is to-day, the colonos are the first to suffer, since they are usually not capitalists, and year by year carry on a more or less 'hand-to-mouth existence.' They will cut no more cane than absolutely

necessary to pay for labor, groceries and things of immediate need. All cane that can hold over without too much deterioration will remain standing in the fields.

"Naturally, they will plant no more new cane and will allow the more unpromising sections of their land to go back to pasture until such time as better prices again tempt them to take another chance in the sugar game. As an illustration of their present attitude, a prominent colono of Pinar del Rio thus expressed himself to me a few days ago. 'Encouraged by 5-cent sugar in '23, I increased my cane planting by some six caballerias, or 300 acres. The 4-cent price offered in '24 was not bad, and believing, as did many others, that it would never again go below 3½ cents, I added 15 more caballerias, or 500 acres, to my colonia. And then came the drop to 2.68 cents and that lets me out of the game.

"My soil is not deep and covers soft limestone. That means good henequen land, and I'm going to try to form a company and grow henequen for the sisal industry. True, I've got to wait three or four years for my first crop, but the demand for cordage and binding twine is steady in the United States. They don't gamble or speculate on the raw material, and if I can manage to put in a thousand acres it will pay me twice as well as cane. Sugar, for me, can go to —, as you say in English.' " And these are the sentiments of many colonos who have been tempted by temporary high prices to go into sugar.

"The ingenios or mill owners are in a somewhat different situation. They must, and probably will, grind all the cane they can get, otherwise they cannot meet their outstanding obligations. Most of them will be able to secure sufficient funds to carry them over for another season and the chance of better prices, but the problem confronting the sugar industry in Cuba is a serious one and has many ramifications. Sugar is the back bone of Cuba's wealth. Hundreds of millions of dollars are invested in lands, mills, machinery, railroads, wharves, warehouses, locomotives, freight cars, scales, tractors, cane carts, oxen, etc.

"Over 60 per cent of this money is American capital, directed and conducted largely by American brains and energy. Not only Cubans, but thousands of stockholders in the United States are deeply interested in the success of the cane sugar industry in this Republic and we cannot permit it to fail. Nature, soil, location, climate, rainfall, have done everything for us. We must do the rest. So much is evident. The question before us to-day is how to solve the problem of price with injury to none and justice to all.

"There are two essential factors in the sugar situation on which success depends: price of raw sugar in the world market and cost of production in Cuba. Price, of course, is based largely on supply and demand. It is true that at times we may find a forced or fictitious price, owing to false rumors of stock on hand, but truth soon adjusts these variations. One fact stands out prominently—given a fair chance—in spite of the lower cost of labor in many countries, we can nevertheless compete with the world in the production of sugar.

"That which more than anything else stands in the way of the sugar industry in Cuba is the high tariff imposed on raw sugar in the United States. We realize, of course, that it is quite natural that the Government at Washington should endeavor to protect the beet-sugar growers of Utah and the West, or, in other words, its own people. But we would like Congress to remember that there are just as loyal Americans in Cuba as there are in Colorado or Utah; that we have many more millions of American capital invested here in the cane sugar industry than our competitors have put into beets in the West; that we increased our acreage at the request of Mr. Hoover during the World War, feeding our own army and those of our allies, and that we are to-day supplying the world with over 25 per cent of all the sugar consumed.

"We are willing that the beet-sugar makers should benefit by a tariff that will protect, or place their industry on a par with ours in Cuba, but we have reason to believe that they demand and receive a great deal more, so much, in fact, that they are forcing our cane-sugar industry to the wall. When the planters of Hawaii, anxious to get their new crop of protected cane sugar into the markets of San Francisco, began to ship a

few large cargoes, the beet-sugar people at once cut their price to discourage this Pacific Island competition.

"The Hawaiians met the cut and still further reduced the price, the fighting continuing until they had cut the price of raw sugar $1\frac{1}{2}$ cents per pound. This industrial encounter was rather amusing and quite instructive to us in Cuba, since it demonstrated the fact that neither one of the two sections of the Union involved, really needed a tariff in order to carry on their business with profit. Louisiana may need it, since soil and climate in that state are none too favorable. She has 'a hard row to hoe,' but not so with the beet-sugar industry of the West. Recent dividends of the *Great Western Sugar* paying 24 per cent on highly watered common stock, would seem to give sufficient evidence that the beet-sugar industry is located on a very prosperous section of easy street.

"The American sugar producers in Cuba are working against this burden of 1.6 cents per pound, which, we believe, is much more than the margin really necessary to protect the beet-sugar makers of the West. We also know that this same tariff is costing the consumers of sugar in the United States the sum of \$2,500,000 every year. The Tariff Commission recommended a reduction of the duty on Cuban sugars, but up to the present Mr. Coolidge has not acted on the recommendation. And, although waiting patiently and hoping fervently for some form of relief from this source, we cannot stand still, but must do all in our power to provide for the worst.

"Realizing that we will always have a keen world-wide competition in the production of cane sugar, the leaders of the industry doing business in this Republic are studying the problem from every possible angle. The cost of production is, of course, one of the most vital factors in the future of the industry, and this depends on efficient, reliable labor at a reasonable wage, more perhaps than on anything else. We have referred elsewhere to the desirability of encouraging families from the Canary Islands to come to Cuba and make permanent homes in our cane growing districts.

"If Congress can be persuaded to vote an appropriation of, say, \$4,000,000, a million of which will be expended each ensuing year in bringing Canary Islanders, with their families and household goods to Cuba and caring for them, not in a detention camp, but in suitable, healthful quarters until colonos and the officers of sugar estates can visit and provide homes for them on the hundreds of plantations scattered over the Island, the labor problem will be definitely and admirably solved for all time to come.

"In this work I am assured that the hacendados and colonos will co-operate most heartily and liberally, since all progressive importance to the welfare, not only of the sugar industry, but of the wealth, peace and future prosperity of the Republic. The finest country in the world is valueless and wasted until you can secure desirable citizens with which to develop its potential wealth.

"A really serious danger for the peace and prosperity of the cane planter made its appearance in Cuba several years ago, attracting at first very little attention, but gradually increasing in importance until to-day all the forces of agricultural science have been called into service to help rid the Island of its destructive presence. We refer to the Mosaic disease. Attention was called to this insidious pest some years ago by Mr. Earl, a former Director of the Experimental Station at Santiago de las Vegas, but neither the Government or the planters seemed to take it seriously. Slowly but surely it spread its baneful mantle over the Island and the cane growers fully realize that only through the most radical methods can the Mosaic disease be successfully combated. In other words, while scientists are still studying the Mosaic, wise planters are pulling by the roots the cane of infected fields and burning it.

"To the variety known as Uba cane there are many objections, although it is known to be immune to the Mosaic bacteria. First of all, the Uba is a comparatively small cane, with smaller amount of sucrose. Second, and more owing to the small diameter of its stalks, is almost twice as expensive to cut and convey to the mill. Complete eradication of all infected fields and continual warfare on the disease at present offers

the safest, if not the only remedy, for this peculiar but really dangerous enemy to the sugar industry.

"Another important factor in the economical production of sugar rests in the use of modern, labor-saving machinery, wherever and whenever possible. The tractor and tractor-drawn cultivators of the soil have already accomplished much in this direction. Various forms of trucks for hauling cane from the fields to the mills rapidly and economically are being tried out. Some of them have already given satisfactory results, one camión with several detachable beds does the work of a dozen ox carts.

"Only a few days ago a request was forwarded to the Secretary of the Treasury asking that a new machine for cutting cane be admitted duty free for demonstration purposes. A machine, propelled and operated by an internal combustion engine, that can cut, top and deliver cane into truck beds as it passes down the row, will do more to solve the labor problem and insure the success of the sugar industry in Cuba than almost any other factor. It will come some day and with it will pass into the discard the hot, back-breaking labor of men, whose hands will then be free for lighter and probably more profitable tasks. When this comes to pass, a million slaves, if they could, would rise from their unmarked graves to shout 'halleluja!'"

Chardon Talks on Mosaic

On January 12, Carlos E. Chardon, Commissioner of Agriculture and Labor of Porto Rico, gave a talk on the mosaic disease at the experiment station at Santiago de las Vegas.

Mr. Chardon spoke of the appearance and spread of the disease in Porto Rico and entered upon a description of the symptoms shown by affected plants. After this introduction he spoke at length regarding the various theories which have been advanced in relation to the cause of the disease, but warning his audience that so far no really definite proof of any theory had been developed. The portion of his talk in which he described his own experiments in connection with insect transmission was the most interesting feature of the afternoon, as he traced out the preliminary observations and experiments conducted which definitely incriminated the corn aphid of transmission. He then told of the control methods employed at present in Porto Rico and described the work being done there with new varieties, mentioning particularly Barbadoes Hybrid 10 (12) and Saint Croix 12(4), seed for both of which may be obtained in Cuba in commercial quantities. Mr. Chardon concluded by expressing the opinion that high praise was due the Cuba Sugar Club for the work it has undertaken in financing the Tropical Plant Research Foundation, and rather astounded his audience by the statement that they would find the mosaic

disease a blessing in disguise, in that it would awaken interest long needed in cultivation practices and use of superior varieties of cane.

T. P. Mason Appointed United Railways General Manager

T. P. Mason has been appointed General Manager of the United Railways of Havana to fill the vacancy caused by the resignation of General Archibald Jack. Mr. Mason has been in Cuba for twenty-five years in the service of the United Railways and has earned the esteem of both Cubans and foreigners. At present he is swamped with congratulations from his many friends. It must also be gratifying to him to note the pleasure with which the Cuban press has received the news of his promotion. In commenting upon it the newspapers all praise the directors of the company for their wisdom in the selection of a man who knows Cuba and the Cubans so thoroughly.

Proposed Increase in Duties on Sugar

The Rumanian Tariff Commission has recommended a substantial increase in the import duty on sugar, in spite of the excellent domestic campaign. It is understood that this recommendation is an effort to prevent dumping of sugar from neighboring countries.—*Acting Commercial Attaché L. Van Norman, Bucharest.*

Traffic Receipts of Cuban Railroads

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1924	1923
Week ending December 27.....	£80,175	£64,674
	1925	1924
Week ending January 3.....	85,234	76,418
Week ending January 10.....	112,998	109,386
Week ending January 17.....	128,317	117,746

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1924	1923
Week ending December 27.....	£15,266	£14,661
	1925	1924
Week ending January 3.....	15,556	15,078
Week ending January 10.....	15,428	14,023
Week ending January 17.....	16,402	14,815

Havana Electric Railway, Light & Power Company

	MONTH OF NOVEMBER		11 MONTHS TO NOVEMBER 30	
	1924	1923	1924	1923
Operating revenues.....	\$1,249,877	\$1,185,907	\$13,044,351	\$12,245,649
Operating expenses and taxes.....	633,458	540,526	6,757,295	5,853,281
Net revenues.....	616,419	645,381	6,287,056	6,392,368
Other income.....	29,464	26,032	307,684	256,102
Total Income.....	645,883	671,413	6,594,740	6,648,470
Interest charges.....	89,946	92,700	999,081	1,025,082
INCOME, after deducting taxes and interest charges.....	555,937	578,713	5,595,659	5,623,388
Sinking fund requirements.....	27,341	25,982	291,330	278,044
Balance of income.....	528,596	552,731	5,304,329	5,345,344

The Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	91½	93½
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	96¾	97¼
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	94	96
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	84	86
Havana City 1st Mtge. 6% Bonds.....	101	110
Havana City 2nd Mtge. 6% Bonds.....	90	103
Cuba Railroad Preferred Stock.....	86	87
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	85¼	85½
Cuba Company 6% Debenture Bonds.....	.....	.....
Cuba Company 7% Cumulative Preferred Stock.....	.....	.....
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	93¾	95½
Havana Electric Ry. Light & Power Co. Pfd. Stock.....	102¾	103¾
Havana Electric Ry. Light & Power Co. Com. Stock.....	90½	92¾
Cuban American Sugar Co. Preferred Stock.....	98¼	104
Cuban American Sugar Co. Common Stock.....	31¾	32
Guantanamo Sugar Co. Stock.....	5½	5¾

Cuban Commercial Matters

Cuban Lumber Market Conditions

While general building activity in Cuba was on a higher level in 1924 than in any preceding year, the sale of lumber was below normal, showing a decrease as compared with 1923. Building of small houses in the interior, which in normal times is an important Cuban source of demand for lumber, has been inactive since the moratorium and, while the remarkable volume of buildings in Habana for the past year has constituted an outlet for a considerable amount of lumber, other construction materials have profited much more than lumber. There is a noticeable tendency in Cuban construction to employ steel and patent roofing and the use of cement is increasing.

CONSUMPTION BELOW NORMAL

Dealers' estimates of the normal consumption of imported lumber in Cuba vary from 125,000,000 to 150,000,000 feet. While statistics for 1924 are lacking, some dealers estimate the year's importations at as high as 100,000,000 feet, while others are of the opinion that not more than 70,000,000 feet have entered the island; all agree, however, that the importations have been disappointing. Southern pine continues to form the bulk of these imports, although several million feet of Canadian spruce and white pine have also been received.

An improvement in lumber business is anticipated during 1925. Consumption in Habana is expected to equal that of last year, while the demand from the interior is expected to improve. Since the moratorium, many planters and small-home owners have been engaged in paying debts resulting from the financial crash. The greater part of these old obligations are now settled, and an increase in small construction is hoped for.—*Trade Commissioner C. A. Livengood, Habana, Cuba.*

German Lines Agree on Service to Cuba

It is reported that all the German steamship companies, operating from Hamburg-Bremen to Cuba, have agreed to so arrange their respective schedules of sailings that at least ten days shall elapse between departures of vessels of any one of the lines.

Cuban Paper Market Overstocked

Large stocks of paper, especially bond paper, are in the hands of Cuban dealers, and it is reported that some important Havana houses are sufficiently stocked to meet their normal demands for the coming year. Competition from Germany and the Scandinavian countries continues to be a serious factor in this market particularly in wrapping, bond, and book papers, while in the newsprint market European prices constitute a tempting inducement to Cuban purchasers. Present quotations on European papers, c. i. f. Habana, are as follows: Hard M. F. print paper (satinado), \$0.045 to \$0.0475; bond paper, \$0.065; M. G. screening, \$0.0325 to \$0.0375; newsprint, \$3.70 to \$3.75 per 100 pounds. American prices on similar grades, f. o. b. American port, are: Hard M. F. printing paper, \$0.0675 to \$0.07; bond paper, \$0.08 to \$0.085; M. G. screening, \$0.0375; newsprint, \$4 to \$4.40 per 100 pounds.

Building Activity in Havana

The Department of Commerce has been advised that the building activity which was in progress at Havana at the beginning of 1924 continues unabated as the year 1925 opens and promises to bring with it a continuance of the large demand for structural steel, concrete reinforcing bars and similar materials. American suppliers have not enjoyed unchallenged supremacy in this market despite the large Cuban consumption of iron and steel. Competition from Belgium, Luxemburg and Germany has been keen in bars, plates, structural shapes, wire nails and rails and European offerings of these materials have been at lower prices than those quoted by American dealers.

Lawrence Turnure & Co.

Messrs. Lawrence Turnure & Co. announce with regret, the retirement of Mr. William E. Glyn as partner in the firm.

They also announce that on January 1st, they admitted as partners in the firm, Mr. George K. Livermore and Mr. Lawrence Turnure.

The Sugar Industry

Europe's Sugar Consumption 1913-14 to 1923-24

By DR. GUSTAV MIKUSCH

While the production of sugar in Europe fell off steadily year by year from the outbreak of war near the close of the crop year 1913-14 until 1919-20, decreasing in that time 70 per cent, consumption followed a somewhat different course. It declined neither so quickly nor so rapidly and the turning point in its movement was reached a year earlier, in 1918-19.

CONSUMPTION HIGHEST IN 1914-15

Consumption of sugar actually increased after the beginning of the war, rising from 7,711,000 metric tons in 1913-14 to 8,993,000 tons the following year, which was marked by the highest consumption figure ever recorded in Europe. In 1915-16 the quantity used was only slightly smaller, amounting to 8,776,000 tons. Thereafter the lack of supplies and the strict regime of regulation imposed by the various governments resulted in a sharp decline in consumption.

The decided increase in consumption during the first two years of the war was to a degree abnormal and was due to conditions created by the conflict. The gain in 1914-15 over 1913-14 was practically confined to three countries as follows: Germany, 726,000 tons; Austria-Hungary, 328,000 tons; Russia, 254,000 tons. All of these countries had considerable stocks of sugar carried over from the year 1913-14. Sugar was plentiful while certain other foodstuffs were scarce and the population, both civil and military, used sugar very freely because it was cheap in comparison with other commodities and was a suitable substitute for fat and meats which were scarce and dear. During the first two years of the war sugar was used in Germany and Austria-Hungary as fodder, as raw material in breweries, distilleries and yeast factories, and even in the munitions industries. Supplies, however, were not inexhaustible, and as consumption continued largely in excess of production it presently became necessary to call a halt in over-consumption and even to regulate the distribution rigidly.

In other countries which ordinarily imported sugar, notably in the United Kingdom, consumption declined steadily from the beginning of the war and did not begin to recover until after 1918-19.

CONDITIONS AFTER THE WAR

At the close of the war conditions were such that the restoration of production could not begin immediately and the low point of output was reached in 1919-20. It was possible, however, following the armistice, to import sugar, though importation was difficult on account of industrial unsettlement and the rapid deterioration of European currencies. From 1918-19 to 1919-20 there was a decided increase in consumption, amounting to 16 per cent. This was not maintained in the following year because internal financial conditions in most parts of Europe were even worse than in the year before, and because during a portion of the year 1920-21 America was paying prices for sugar with which Europe could not compete, so that there were actually large shipments from Europe to the United States.

In 1921-22 the growth in consumption was resumed with an increase of 935,000 tons, or 18 per cent over the preceding year. In 1922-23 there was a further gain of 652,000 tons, or nearly 11 per cent. In 1923-24 there was again a slight retrogression, the distribution declining 225,000 tons. This was due entirely to the great decrease in Germany, amounting to 445,000 tons. The rest of Europe showed a small increase.

CONSUMPTION OUTLOOK FOR 1924-25

In view of the fact that Europe has just concluded a harvest of some 7,100,000 tons, raw value, and is now only 13.6 per cent below its 1913-14 output, there is more

than the ordinary amount of speculation as to what the consumption figures will show for the crop year 1924-25. There is no decisive answer in the crop movement for the first few months of the year. While distribution increased smartly when new crop supplies first came on the market, the trade has been rather quiet in the final two months of the year.

Considering, however, that prices are lower than a year ago, that industrial and financial conditions are showing marked improvement, and that consumption last year failed to show a normal gain over the preceding season, it appears logical to expect a rather substantial growth in consumption during the current year. A gain of 10 per cent, bringing consumption for the year now under way up to about 7,350,000 tons, raw value, would seem to be a reasonable expectation.

In the accompanying table is given, in thousands of metric tons, raw value, the distribution of sugar in each of the principal countries of Europe for eleven years 1913-14 to 1923-24. Certain countries for which reliable statistics are unobtainable are not included in this tabulation. The consumption of these countries may be roughly valued at 185,000 tons in 1922-23 and 240,000 tons in 1923-24.

EUROPEAN SUGAR CONSUMPTION

In thousands of metric tons, raw sugar value.

	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24
Germany.....	1,435	2,161	1,932	1,390	1,560	1,305	917	1,147	1,433	1,333	900
Czechoslovakia.....						318	331	318	309	352	362
Austria.....	686	1,014	1,104	877	723	80 ^b	84	94	112	114	150
Hungary.....						78 ^b	22	36	64	59	49
France.....	760 ^c	710	626	600 ^c	438	458	915	606	807	853	827
Belgium.....	117	178	105	86	123	129	136	129	158	175	168
Netherlands.....	139	146	170	168	220 ^c	180 ^c	205	209	235	221	207
Poland.....						80 ^b	120 ^b	120 ^b	122	186	193
Russia.....	1,734 ^b	1,988 ^b	2,030 ^b	1,325 ^d	1,015 ^d	370 ^d	90 ^d	105 ^d	75 ^d	215 ^d	430 ^d
Denmark <i>a</i>	105 ^b	125 ^b	120 ^b	136	111	123	134	126	141	159	148
Sweden <i>a</i>	154	163	179	157	131	133	190	195	175	184	174
Italy.....	216	195	264	184	143	140	232	204	261	323	350 ^b
Spain <i>a</i>	144	140	174	122	135	162	155	106	172	220	230 ^b
United Kingdom <i>a</i>	1,942	1,882	1,831	1,551	1,209	1,045	1,696	1,228	1,553	1,792	1,710
Other countries.....	279	291	241	298	208	153	292	386	325	408	550
Total.....	7,711	8,993	8,776	6,804	6,016	4,754	5,519	5,009	5,942	6,594	6,448

a Calendar year. *b* Estimated. *c* Official figures are incomplete for these years; figures in the table are calculated for entire crop years. *d* Estimated from best information obtainable in the absence of reliable official figures.

United States Sugar Consumption

The calendar year just completed witnessed the distribution of the equivalent of 5,417,000 long tons of raw sugar in the United States, according to preliminary statistics compiled by Lamborn & Co., Inc. In this calculation the December imports and exports of sugar are estimated. It is their opinion, however, that the official statistics for that month will very closely approximate these estimates.

Consideration of this large measure of sugar consumed reveals the interesting fact that the 1923 record has been exceeded by a round 500,000 tons, that per capita consumption in 1924 amounted to 108 pounds per person compared with 99 pounds in 1923.

Domestic sugar supplied 1,008,000 tons or 18.6 per cent in 1924, against 995,000 tons or 20.2 per cent in 1923. The smaller supply of domestic cane sugar in 1924 has been slightly more than offset by the distribution of larger quantities of domestic beet sugar.

German Sugar in Dawes Plan

As numerous inquiries have been received as to the status of the German sugar industry under the Dawes agreement for the payment of reparations it may be interesting to explain briefly the workings of the plan.

Every industrial undertaking, including banks, is responsible for the German liabilities to the extent of 17.1 per cent of its working capital. Only agricultural undertakings and those whose working capital is less than 20,000 marks are exempted. Sugar manufacturers are not exempted, though they requested exemption on the ground that their industry was essentially agricultural. Every firm has to hand over bonds for the full prescribed amount to the *Bank für Industrie Obligationen*, but is mortgaged only to the extent of the interest and amortisation payable thereon.

The bank, which is acting as an intermediary between the individual firms and the Allied trustee, bears the entire responsibility for the whole amount of 5,000,000,000 gold marks which Germany has to pay under the Dawes agreement. In case of sale of the business the buyer is responsible for the interest and amortisation and in case of bankruptcy the bank has a priority for the same amount. The stipulated payment represents the liability of the industry towards the Allied trustee, while the actual payments that have to be made by the individual firm to the bank have not been definitely fixed as the German law includes a larger number of firms than the Dawes plan. The payment of interest on the 17.1 per cent is suspended till September, 1925, and is fixed at 2½ per cent for the second and at 5 per cent for the third and the following years. From the fourth year onward an amortisation of one per cent is to be paid in addition.

United States Sugar Production

Sugar production of approximately 1,192,000 short tons from beets and cane grown in the United States this year is indicated in reports received by the United States Department of Agriculture from beet and cane sugar factories. Production from the 1923 crops was 1,043,000 short

tons, and, from the 1922 crops, was 970,100 short tons.

These figures include the production of beet sugar in all beet-sugar factories in the United States, and the production of cane sugar from cane grown in Louisiana, but do not include small quantities of cane sugar which may have been made in Florida, Texas, and other southern states.

Production of beet sugar in 1924 is estimated at 1,087,000 short tons, compared with 881,000 short tons a year ago. This relatively large production is largely accounted for by the high sugar content of the beets, which is 16.82 per cent, compared with 15.34 per cent last year, and by the larger acreage. Offsetting factors are the relatively low yield of beets per acre which, for the United States, was 8.90 tons, compared with 10.66 tons a year ago. The production of beets this year is reported as approximately 7,500,000 tons, or about 107 per cent of last year's production.

The cane sugar crop of 1924 is approximately only 105,000 short tons, a low production caused by unfavorable weather, and also by the high price of cane sirup. Cane sugar production has steadily declined from the 324,431 short tons of 1921.

Although Louisiana maintained its former production of sugar cane sirup in 1924, and Florida exceeded it, other states produced far less than before, and the total production was only 22,298,000 gallons. Production in 1923 was 35,373,000 gallons, and in 1922, 41,611,000 gallons.

Central Cabaiguan Sold

It is reported Central Cabaiguan, situated at Cabaiguan, Santa Clara, has been sold by the Rogelio Diaz Pardo to a company headed by Emilio del Real and said to include American interests. Repairs have been started at the mill, which did not operate last season, and it is announced that it will grind this year, starting in February. In 1922-23 Cabaiguan, then known as Central Jesus Nazareno, produced 33,029 bags and in 1920-21 it made 84,325 bags. Central Eden is another former name of this property. Mariano Caballero Morejon, manager of the mill under its former ownership, will be retained by the new regime.

Coming Java Sugar Crop to Equal 1924 Outturn

Weather conditions in Java during the month of November were generally favorable to the growth of cane. Rainfall at this season of the year is a principal factor in determining the yield of the coming season. While the rains thus far have been spotty there is every reason to anticipate that the production in 1925 will be as good as if not better than in 1924. Operations in the rice fields are proceeding well, so that the opening of the ground in 1925 will not be subject to delay.

Aside from some cases of root rot practically no cane diseases are observable in the Java fields. Some trouble is being experienced from the white louse (*Orenga lanigera* Zehnter) which will need to be vigorously combatted in order to prevent it from seriously affecting production.

The sugar market has been rather quiet and dull with very few transactions and these mostly confined to switches from early to later positions. Some sales of 1924 crop whites have been made at 14.125 florins per picul (4.15 cents per pound) for December and January positions, with February 14.4375 florins (4.25 cents), and March at 14.25 florins (4.30 cents). Small lots of No. 16 standard have been sold at prices ranging from 12 florins per picul for December to 12.375 for February (3.53 to 3.64 cents per pound).

Business by second hands in 1925 crop has included 5,000 piculs June-July delivery at 12 florins per picul and 500 tons July-August at 11.75 florins (3.53 and 3.45 cents per pound). There are further sellers at these prices, but little demand.

Statistics of shipments during November show that these have amounted to 2,312,792 piculs, or 140,425 long tons.

Production of the 1924 crop to the end of October is estimated at 32,491,668 piculs or 1,972,778 long tons. Shipments to the end of November, including 528,803 piculs carried over from the previous crop, have been 25,354,821 piculs or 1,549,454 long tons. Deducting the amount required for home consumption leaves 5,265,652 piculs, or 319,712 long tons, available for shipment after December 1 as compared with 5,025,041 piculs, or 305,102 long tons, on hand December 1, 1923.

Cuba Company Bond Issue

Negotiations in connection with the proposed issue of bonds by the Cuba Company for the purpose of financing the Consolidated Railroads of Cuba have been completed and on January 14 the issue, of \$10,000,000 in ten-year secured convertible sinking fund gold bonds bearing interest at 6 per cent and maturing January 1, 1925, was placed on the market by W. A. Harriman & Company and Blair & Company, Inc. The bonds were offered at a price of 98½ and interest, at which they will yield 6.20 per cent to buyers.

The purpose of the issue is to enable the Cuba Company to retire existing obligations of \$7,500,000 incurred in the purchase of the preferred stock of the Consolidated Railroads of Cuba and for other corporate purposes. The bonds will be a direct obligation of the Cuba Company and will be secured by a pledge of \$20,000,000 of six per cent cumulative preferred stock of the Consolidated Railroads, of which stock \$40,000,000 is authorized and \$39,881,630 is outstanding. The bonds may be converted into preferred stock of the Consolidated Railroads at a basis of \$80 per share on or before January 1, 1927. After that date the conversion price will increase \$2.50 per share every two years. They are redeemable at 103½ to January 1, 1926, and thereafter at one-half per cent less annually to January 1, 1930, and at one-quarter per cent less annually after that date.

The Cuba Company owns 91 per cent of the preferred and 60 per cent of the common stock of the Consolidated Railroads of Cuba, a system of 982 miles serving the eastern half of the country. It also owns all of the securities of the Compañía Cubana which operates two large sugar centrals with a combined production capacity of 800,000 bags of sugar.

Earnings of the Cuba Company and subsidiaries for the last three fiscal years, ending June 30, have been as follows after deduction of interest, taxes, and preferred dividend charges: 1922, \$2,067,829; 1923, \$5,696,749; 1924, \$5,060,970. Earnings of the companies forming the Consolidated Railroads of Cuba were \$2,046,821 in the fiscal year 1922, \$4,782,114 in 1923, and \$4,655,919 in 1924.

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF PINAR DEL RIO

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Andorra.....	Artemisa.....	Cía. Az. Andorra S. A.....	607 Edificio Barraqué Hab.	Cuban.....	Ezequiel Zubillaga..	135,021	139,467	90,000	94,187	130,000
Bahía Honda.....	Bahía Honda.....	Cía. Az. Ctral. Bahía Honda, S. A.....	Amargura, 11 Habana.....	Cuban.....	A. Solé.....	36,731	.....	34,404	30,500	75,000
El Pilar.....	Artemisa.....	Pedro Laborde.....	O'Reilly, 11 Habana.....	French.....	R. Benítez Pérez...	166,718	212,523	187,000	191,829	230,000
Galope.....	San Juan y Martínez	Cía. Az. Pinaréna, S. A.....	304 Canada Bldg. Habana.	Cuban.....	Jose M. Herrera.....	42,675	68,577	70,960	66,936	70,000
La Francia.....	Los Palacios.....	San Juan Sugar Co.....	Aguiar 71. Habana.....	Cuban.....	Ginorio Bros.....	47,748	55,086	36,000	56,103	100,000
Mercedita.....	Cabañas.....	Cuban-American Sugar Co.	605 Robins Bldg., Havana.	American....	W. G. Cooper.....	117,526	104,671	144,559	120,798	140,000
Niágara.....	Conde del Norte.....	Manuel Galdo.....	Edificio Manzana de Gómez Habana.....	Cuban.....	J. Brodermann.....	.....	34,194	46,450	62,600	75,000
Orozco.....	Cabañas.....	Orozco Sugar Co.....	Munoz Bldg., Habana.....	Cuban.....	J. Rodriguez Frago.	98,220	78,160	57,000	85,950	100,000
San Cristóbal.....	San Cristóbal.....	Cía. de Factura de Ingenios de San Cristóbal.....	Aguiar 73, Habana.....	Cuban.....	M. Miller.....	42,200	71,088	66,000	104,001	140,000
San Ramón.....	Maríel.....	Ctral. San Ramón, S. A.....	Havana 80 Habana.....	Cuban.....	M. A. Balsinde.....	83,065	77,077	95,500	107,500	120,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF HAVANA

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Alquizar.....	Alquizar.....	Cía. Az. Alquizar.....	Empedrado 30 Habana....	Cuban.....	Jose Rupia.....	32,642	21,966	Did not grind	Did not grind	Will not grind
Amistad.....	Guines.....	Cía. Az. A. Gómez Mena.....	Manzana de Gómez, Habana.....	American.....	P. Urruela.....	229,150	196,947	141,000	161,652	175,000
Fajardo.....	Gabriel.....					59,128	22,234	13,445	15,646	Will not grind
Gómez Mena.....	San Nicolás.....	Cía. Az. A. Gómez Mena.....	Manzana de Gómez, Habana.....	American.....	A. R. de Blanck.....	363,519	319,768	224,000	286,599	300,000
Habana.....	Hoyo Colorado.....	Rafael Montalvo.....	Aguiar 74, Habana.....	Cuban.....	R. Montalvo.....	95,534	65,868	70,000	91,420	100,000
Hershey.....	Hershey.....	Hershey Corp.....	Edificio Manzana de Gómez, Habana.....	American.....	P. A. Staples.....	131,869	106,766	123,000	157,516	190,000
Josefita.....	Los Palos.....	Ricardo Martínez.....	Los Palos.....	Cuban.....	J. M. Martínez.....	54,776	76,551	59,500	85,000	90,000
La Julia.....	Duran.....	Cuba Cane Sugar Corp.....	Edificio Barraqué, Habana.....	American.....	F. Barreto.....	218,502	160,420	112,000	179,253	180,000
Mercedita.....	Melena del Sur.....	Enrique Pascual.....	Obrapia 38, Habana.....	Spanish.....	Lemes Pascual.....	210,000	145,000	84,770	109,345	120,000
Nombre de Dios.....	Guines.....	Cía. Ctral. N. de Dios, S. A.....	Royal Bank Bldg., Habana.....	Cuban.....	A. Serra.....	102,356	56,493	37,000	60,731	85,000
N. S. del Carmen.....	Carmen.....	Cía. Az. P. F. de Castro.....	Edificio Abreu, Habana.....	Cuban.....	A. P. Pdez de Castro.....	91,500	53,382	81,686	115,871	140,000
Nueva Paz.....	Nueva Paz.....	Cía. Az. de Nva. Paz, S. A.....	Mercaderes, 4 Habana.....	Cuban.....	E. H. Gato.....	44,070	26,117	34,608	37,620	40,000
Occidente.....	Guero Narrero.....	Cía. Az. Ctral. Occidente.....	Banco Nacional, Habana.....	Cuban.....	Gonzalo Calvo.....	66,638	51,767	35,010	43,319	45,000
Portugalete.....	San Juan de las Lajas.....	Manuel Otaduy.....	San Ignacio 72, Habana.....	Spanish.....	V. Goicolchea.....	110,745	79,775	55,126	83,424	85,000
Providencia.....	Guines.....	Cía. Az. de Guines.....	Mercaderes 24, Habana.....	Cuban.....	F. S. Podion.....	226,824	178,973	153,000	214,100	190,000
Rosario.....	Aguacate.....	Rosario Sugar Co.....	Manzana de Gómez, Habana.....	American.....	J. G. Pelayo.....	218,244	121,104	123,000	163,194	190,000
San Antonio.....	Madrugada.....	Cía. Az. Gómez Mena.....	225 M. de Gómez, Bld. Habana.....	Cuban.....	Jose Aguirre.....	201,034	143,013	130,594	173,000	200,000
Toledo.....	Marianao.....	Cía. Az. Ctral. Toledo, S. A.....	Marianao. Actdo. 25.....	Cuban.....	A. Sorhegui.....	427,752	321,990	257,309	330,877	360,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF MATANZAS

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Alava.....	Baganüises.....	Cuba Cane Sugar Corp.....	Barraqué Bldg., Habana.....	American.....	A. Zubillaga.....	334,913	223,596	210,000	270,997	300,000
Araujo.....	Manguito.....	Manguito Sugar Co.....	Munoz Bldg., Habana.....	Cuban.....	R. Rodriguez.....	151,191	75,840	73,000	122,284	135,000
Australia.....	Jaguey Grande.....	Cia. Azuc. Ingenio Australia.....	O'Reilly, 11 Habana.....	Cuban.....	Mario Paz.....	150,678	105,327	107,890	48,496	100,000
Carolina.....	Coliseo.....	Manuel Flores.....	Coliseo.....	Cuban.....	Juan Padrón.....	104,026	80,174	73,941	96,500	90,000
Conchita.....	Unión de Reyes.....	Cuba Cane Sugar Corp.....	Barraqué Bldg., Habana.....	American.....	F. Bertrán.....	268,660	230,606	198,436	247,225	280,000
Cuba.....	Pedro Betancourt.....	Ctral. Cuba Sugar Co.....	Aguacate 110, Habana.....	American.....	Gerardo Fundora.....	194,887	146,505	148,000	184,555	185,000
Dolores.....	Jovellanos.....	Ingenio Dolores S. A.....	Vedado G y 7, Habana.....	Cuban.....	Aurelio Martínez.....	75,714	63,173	50,700	43,359	60,000
Dos Rosas.....	Cárdenas.....	Hires Sug. Co.....	Phila.....	American.....	I. J. Rivero.....	58,561	48,683	49,600	63,467	60,000
Dulce Nombre.....	Macagua.....	Cia. Dulce Nombre S. A.....	Monte 1, Habana.....	American.....	F. A. Farbes.....	62,167	40,506	25,254	36,811	45,000
Elena.....	Ceiba Mocha.....	Sobrinos de Bea.....	Ceiba Mocha.....	Spanish.....	A. Justiniani.....	9,093	7,076	8,216	14,107	10,000
España.....	Perico.....	Cia. Nac. de Azucare de Cuba, S. A.....	Banco Nc., Habana.....	Cuban.....	José M. Casanova.....	492,028	410,422	393,000	402,414	475,000
Flora.....	Guira de Macarrigues.....	Ctral. Cuba Sugar Co.....	Aguacate 110, Habana.....	American.....	Julio Tarafa.....	105,945	74,905	66,410	83,512	85,000
Guipúzcoa.....	Hato Nuevo.....	Ramón de Alejo Gurruchaga.....	Hato Nuevo.....	Spanish.....	E. Udaeta.....	207,175	124,500	122,800	162,000	190,000
Jesús María.....	Benavides.....	Cia. Azuc. Ctral. Maria.....	43 Exch. Place, N. Y.....	American.....	B. Laine.....	111,039	95,681	84,915	104,526	115,000
Limones.....	Limonar.....	Banco Nacional de Cuba.....	Bco. Nac. de Cuba, Habana.....	Cuban.....	B. Gómez.....	154,139	148,554	58,850	.....	40,000
Mercedes.....	Guareiras.....	Cuba Cane Sugar Corp.....	Barraqué Bldg., Habana.....	American.....	A. Van Patten.....	360,694	251,099	268,000	285,775	300,000
Por Fuerza.....	Calimete.....	La Paz Sugar Co.....	Céspedes.....	American.....	J. Pedemonte.....	141,854	158,000	129,000	148,334	150,000
Porvenir.....	Cidra.....	Cia. Azuc. de Cidra.....	Cidra.....	Cuban.....	Alfredo Ruiz.....	25,759	9,128	11,634	10,337	18,000
Progreso.....	Cárdenas.....	Ctral. Progreso, S. A.....	Central Progreso.....	Cuban.....	M. H. Bretos.....	124,090	124,722	70,749	47,113	Not expected to grind 30,000
Puerto.....	Canasí.....	Jose Avendano.....	Inquisidor 22, Habana.....	Spanish.....	Agustin Aguerto.....	31,858	26,675	32,901	32,700	80,000
San Iganacio.....	Agramonte.....	Cia. Azuc. Central, San-Ignacio, S. A.....	Agramonte.....	Cuban-Sp.....	F. Sotolongo.....	92,451	60,428	62,000	74,754	80,000
San Vicente.....	Jovellanos.....	Cia. Azuc. San Vicente.....	Edificio Barraqué, Habana.....	Cuban.....	E. Estrada.....	109,652	57,425	54,000	54,926	60,000
Santa Amalia.....	Coliseo.....	Laurention Garcia, S. A.....	Coliseo.....	Cuban.....	L. Garcia, Jr.....	143,330	105,893	103,795	103,279	135,000
Santa Gertrudis.....	Bananigüises.....	Cuba Cane Sugar Corp.....	Barraqué Bldg., Habana.....	American.....	J. M. Campaner/a.....	205,865	121,983	119,000	154,675	175,000
Santa Rita.....	Baró.....	Cia. Az. Caobillas.....	G. Mena Bldg., Habana.....	Cuban.....	J. G. Guna.....	110,875	26,420	67,384	93,486	100,000
Santo Domingo.....	Unión Reyes.....	Ctral. Cuba Sugar Co.....	Aguacate 110, Habana.....	American.....	M. Moyrons.....	.....	.....	.....	66,102	80,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF MATANZAS—Continued

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Esti- mated 1924-25 Crop
						1921	1922	1923	1924	
Saratoga.....	Bolondron.....	Central Cuba Sugar Co.....	Aguacate 110, Habana.....	American.....	.....	51,927	35,844	Did not grind	Did not grind	Not ex- pected to grind
Socorro.....	Pedroso.....	Cuba Cane Sugar Co.....	Barraqué Bldg., Habana.....	American.....	.....	304,197	172,061	Did not grind	Did not grind	Will not grind
Soledad.....	Jovellanos.....	Cuba Cane Sugar Co.....	Barraqué Bldg., Habana.....	American.....	A. Suárez.....	112,586	91,121	124,000	116,076	170,000
Tingüaro.....	Tingüaro.....	Cuban American Sugar Co.....	129 Front St., New York.....	American.....	J. W. Caldwell.....	250,408	184,182	201,000	224,851	225,000
Triunfo.....	Limonar.....	Juan Menéndez.....	Limonar.....	Cuban.....	J. Menéndez.....	52,025	46,492	54,000	78,010	75,000
Unión.....	Agramonte.....	Cia. Az. del Sur.....	Aguar 86, Habana.....	Cuban.....	J. L. Fiol.....	116,840	94,261	72,548	39,604	Will not grind

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF SANTA CLARA

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Adela.....	Remedios.....	Cía Zárraga.....	Bco. Ncl. Habana.....	Cuban.....	C. F. Calienes.....	94,600	57,501	68,307	95,244	100,000
Agabama.....	Formento.....	Ctral. Agabama, S. A.....	Aguiar 73, Habana.....	Cuban.....	H. Monteagudo.....	158,084	183,795	144,000	31,010	50,000
Andreíta.....	Cruces.....	Cía. Az. Ctral. Andreíta.....	Oficios 22, Habana.....	Cuban-Sp.....	Eladio Cabezas.....				169,221	180,000
Caracas.....	Sta. Isabel de Las Lajas.....	Cía. Az. Caracas.....	Manzana de Gómez, Habana.....	Cuban.....	Geo. G. Harris.....	179,916	194,385	209,000	313,333	275,000
Cardosa.....	Matagua.....	Gutierrez y Folgueras S. en C.....	Apartado 12, Ranchuelo.....	Cuban-Sp.....	S. Touza.....	51,196	52,300	47,500	53,000	
Carmita.....	Vega Alta.....	Cía. Azuc. Ctral. Carmita.....	Aguiar 71, Habana.....	Cuban.....	R. Matacena.....				47,108	
Cieneguita.....	Abreu.....	Ctral. Cieneguita, S. A.....	Oficios 22, Habana.....	Spanish.....	L. R. González.....	73,470	93,591	60,400	66,617	85,000
Constancia.....	Constancia.....	Colonial Sugars Co.....	Robins Bldg., Habana.....	American.....	Allan B. Bailey.....	156,857	204,775	140,500	125,240	175,000
Constancia.....	Encrucijada.....	Constancia Sugar Co.....	Manzana de Gómez, Habana.....	Cuban-Amer.....	Eduardo Curbelo.....	142,457	125,245	105,600	132,465	140,000
Corazon de Jesus.....	Sitio Grande.....	M. V. de Ona Amezaga.....	Carmen Ribalto 103, Sagua la Grande.....	Cuban.....	Ignacio Aguirre.....	105,570	95,747	Did not grind	Did not grind	Will not grind
Covadonga.....	Carreño.....	Manuel Carreño.....	Carreno Bldg., Habana.....	Spanish.....	Alejo Carreño.....	216,878	196,490	167,167	158,672	190,000
Dos Hermanos.....	Cruces.....	Dos Hermanos Sugar Co.....	Manzana de Gómez, Habana.....	Cuban.....						
Fé.....	Salamanca.....	Cía. Azuc. Salamanca.....	45 Exchange Pl., New York.....	Cuban.....	J. Rupia Ulacia.....	82,040	57,444	45,830	81,019	90,000
Ferrer.....	Alango.....	José Ferrer.....	Arguelles 125, Cienfuegos.....	Cuban.....	J. E. Ponte.....	144,267	158,582	110,000	124,576	150,000
Fidencia.....	Placetas.....	Sagua Placeta Sugar Co.....	Aguiar 86, Habana.....	Spanish.....	F. Rabassa.....	41,637	66,481	84,000	70,021	100,000
Hormiguero.....	Hormiguero.....	Hormiguero, S. A.....	Hormiguero.....	Cuban-Amer.....	Francisco Leon.....	89,678	77,032	47,708	76,759	100,000
Cabaiguán.....	Cabaiguán.....	Cía. Az. y de Fomento Agrícola.....	Robins Bldg., Habana.....	Cuban.....	E. Pouvert.....	246,206	222,158	217,600	236,880	250,000
La Vega.....	Guayos.....	Sug. Plant. Ote-Oriente Co.....	Aguiar 71, Habana.....	Cuban.....	Mariano, Caballero, Morejon.....	84,325	14,968	Did not grind	Did not grind	
Lequeitio.....	Lequeitio.....	Cuba Cane Sugar Co.....	Barraque Bldg., Habana.....	American.....	E. Rosado.....	108,689	80,835	93,672	118,490	125,000
Macagua.....	Mata.....	Herederos de M. C. Vda. de Bethart.....	Macagua.....	Cuban.....	John J. Carlee.....	168,453	112,648	Did not grind	Did not grind	Will not grind
					Domingo Bethart.....	57,851	53,929	48,500	56,031	60,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF SANTA CLARA—Continued

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Manuelita..... Maria Antonia.....	Palмира..... Sto. Domingo.....	Cia. Az. Ctral. Manuelita..... Cia. Az. Maria Antonia..... S. A.....	Oficios 22, Havana..... Apartado 42, Sagua la Grande..... Aguar 71, Habana.....	Spanish..... Cuban..... Cuban.....	P. Monasterio..... E. P. Cobb..... Andrés Calleja..... O. N. González.....	87,380..... 57,357..... 7,502..... 108,706.....	81,242..... 37,618..... 18,502..... 86,998.....	70,000..... 23,105..... 22,938..... 81,500.....	77,740..... 29,149..... 87,916..... Did not grind.....	90,000..... 85,000..... 130,000.....
Maria Luisa..... Maria Victoria.....	Zulueta..... Aguade de Pasajeros.....	Cia. Az. Maria Luisa, S. A..... Cuba Cane Sugar Corp.....	Barraqué Bldg., Habana.....	American.....	Antonio Alvo.....	152,879.....	97,642.....	Did not grind.....	Did not grind.....	Will not grind.....
Mascota.....	Rodas.....	San Lino, S. A.....	Banco Nacional, Habana.....	Spanish.....	.....	.....	.....	.....	.....	.....
Narcisa.....	Yaguajay.....	North American Sugar Co.....	Manzana de Gómez, Habana.....	American.....	G. H. Fowler, Jr..... L. Del Castillo.....	144,338..... 27,164.....	169,933..... 29,483.....	267,780..... 27,600.....	249,318..... 27,162.....	300,000..... 60,000.....
Natividad..... Nazábal.....	Santi Spiritus..... Encrucijada.....	Sucesores de F. L. del Valle..... Domingo Nazábal.....	O'Reilly 11, Habana..... Aptdo. 337, Cienfuegos.....	Cuban..... Spanish.....	D. Nazábal, Jr..... Jose Sosa.....	112,510..... 42,800.....	132,510..... 26,069.....	127,000..... 30,000.....	173,539..... 17,606.....	180,000..... 30,000.....
Nela..... Parque Alto.....	Mayajigua..... Congojas.....	Patricio Suárez..... Cia. Agrícola de Rodas.....	Mayajigua..... Manzana de Gómez, Habana.....	Cuban..... British.....	..... Alfredo Curbelo.....	..... 94,946.....	..... 67,239.....	..... 83,000.....	..... 84,300.....	..... 90,000.....
Pastora.....	San Juan de las Yeras.....	Cia. Az. Bernia, S. A.....	San Juan de las Yeras.....	Spanish.....	G. A. Regato.....	62,735.....	38,713.....	28,000.....	53,000.....	60,000.....
Perseverancia.....	Real Campina.....	Cuba Cane Sugar Corp.....	Barraqué Bldg., Habana.....	American.....	F. Aldereguia.....	164,129.....	134,471.....	127,000.....	155,720.....	175,000.....
Portugalete.....	Palмира.....	Cia. Az. Ctral. Portugalete.....	Aptdo. 210, Cienfuegos.....	Cuban.....	E. A. Cobb.....	93,128.....	73,607.....	57,500.....	54,484.....	85,000.....
Purio.....	Calabazar de Sagua.....	Central Purio, S. A.....	Calabazar de Sagua.....	Cuban.....	A. Font.....	75,726.....	87,184.....	60,100.....	87,990.....	100,000.....
Ramona.....	Pancho Veloz.....	Sagua-Placetas Sugar Co.....	Aguar 86, Habana.....	Cuban.....	J. Vilardebo.....	114,824.....	74,832.....	56,877.....	123,238.....	140,000.....
Reforma.....	Caibarien.....	Cia. Az. Ctral. Reforma, S. A.....	O'Reilly 7, Habana.....	Cuban.....	T. A. Montalvan.....	114,532.....	113,581.....	82,000.....	114,667.....	120,000.....
Resolución.....	Carahotas.....	Cia. Az. Resolucion, S. A.....	Ramona.....	Cuban.....	H. Rodda.....	72,504.....	54,132.....	43,000.....	88,803.....	100,000.....
Resulta.....	Sagua la Grande.....	Cia. Az. Resulta, S. A.....	Sagua la Grande.....	Cuban.....	R. Tomasino.....	128,159.....	126,671.....	90,500.....	131,264.....	160,000.....
Rosalia.....	Taguayabon.....	Ctral. Rosalia, S. A.....	Arisa 23, Caib.....	Cuban-Sp.....	E. Lamar.....	45,151.....	45,631.....	34,966.....	Did not grind.....	Will not grind.....
San Augustin..... San Augustin.....	Lajas..... Remedios.....	Nicolas Castano..... Cia. Mercantil Azuc. S. Augustin.....	Cienfuegos..... Obrapia 19, Habana.....	Spanish..... Cuban.....	A. Betancourt..... L. B. Cadwell..... Vicente Abreu.....	165,760..... 155,218..... 60,782.....	136,416..... 147,960..... 36,472.....	124,700..... 135,000..... 37,465.....	165,143..... 151,437..... 51,371.....	180,000..... 160,000..... 70,000.....
San Antonio.....	Santa Clara.....	Vicente G. Abreu.....	Sta. Clara, Aptdo. 81.....	Cuban.....	.....	.....	.....	.....	.....	.....

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF SANTA CLARA—Continued

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
San Francisco	Cruces	P. E. Abreu	San Ignacio 50, Habana	Cuban	Pedro Jover	104,768	73,707	75,749	98,696	100,000
San Isidro	Quemado de Güines	Sta. Clara Operating Co.	Manzana de Gómez, Habana	Cuban	C. M. de Salazar	142,280	105,352	101,500	150,091	160,000
Santa Isabel	Fomento	Cia. Az. Ctral. Sta. Isabel S. A.	Fomento	Cuban	I. Cartaya	84,624	105,710	113,931	110,736	140,000
San José	Placetas	Suc. de A. F. Golcochea	17 y C (Vedado) Habana	Cuban	Juan F. Bernal	154,324	123,700	104,000	128,550	150,000
San Pablo	Zulueta	Ctral. S. Pablo. S. A.	Zulueta	Cuban	Jose Pujol	51,337	39,185	29,000		40,000
Santa Ana de los Mapos	Guasimal	Cia. de F. Mercantil	Nva. Scotia Bank Bldg., Habana	Cuban	E. Salis	19,363	14,000	Did not grind		
Santa Catalina	Cruces	Cia. Az. Ctral. Sta. Catalina S. A.		Cuban				15,381		12,000
Santa Lutgarda	Mata	Ctral. Santa Lutgarda, S. A.	D'Clouet 23, Cienfuegos	Cuban	A. E. Marti	122,600	91,600	67,500	125,726	140,000
Santa Maria	Ranchuelo	E. Cacicedo	Aguiar 71, Habana	Cuban	Juan López Oña	131,954	142,442	101,890	146,190	160,000
Santa Rosa	Ranchuelo	Sta. Clara Oper. Co.	Aptdo 15, Ranchuelo	Spanish	E. Cacicedo, Jr.	114,109	108,285	104,000	128,288	125,000
Santa Teresa	Sitiecito	Sta. Teresa Sugar Co.	Aguiar 73, Habana	Cuban	J. A. Arguelles	149,265	85,658	82,508	123,381	120,000
Soledad	Cienfuegos	Cia. Az. Soledad	Sitiecito	Cuban	A. Peñaranda	153,913	149,336	128,000	191,280	200,000
Trinidad	Trinidad	Trinidad Sugar Co.	10 Broad St., Boston	American	L. F. Hughes	114,920	115,213	122,700	114,117	120,000
Tuinucú	Sancti Spiritu	The Tuinucú Sugar Co.	Obispo & Aguiar, Habana	American	W. G. Pullum	84,946	107,740	95,189	84,362	90,000
Ulcia	Rodrigo	Ctral. Ulacia Cia. Az. S. A.	Barraqué Bldg., Habana	American	J. B. Rionda	250,959	245,693	242,453	253,822	300,000
Unidad	Cfuentes	Cuban-Amer. Sugar Co.	Rodrigo	Cuban	P. Sánchez	107,656	80,881	50,205	80,521	100,000
Vitoria	Yaguajay	J. P. R. de Gámez	129 Front St., New York	American	M. C. Alcántara	88,939	78,500	78,500	86,418	100,000
Washington	Hatuey	Industrial Azucarera, Washington, S. A.	Cuba 138, Habana	Spanish	F. Elso	121,450	135,137	132,000	171,212	175,000
Zaza	Placetas	Hncs. Zulueta y Gómez	Desempedrados 52, Habana	Cuban	M. A. Breto	171,163	108,948	100,000	131,412	175,000
			Cuba 20, Habana	Spanish	R. Orrantia	88,680	103,845	120,000	127,000	130,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF CAMAGÜEY

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Adelaida.....	Falla-Morón.....	Cía. Az. Adelaida S. A.....	Oficios 22, Habana.....	Spanish.....	M. Cevera.....	258,235	251,850	254,859	283,385	300,000
Agramonte.....	Florida.....	Cía. Az. Vertientes, S. A.....	Manzana de Gómez, Habana.....	American.....	W. J. Miller.....	295,725	272,247	270,177	316,395	400,000
Algodones.....	Algodones.....	Sugar Plantations Operating Co.....	Aguiar 71, Habana.....	Cuban.....	George Hoth.....	175,464	131,273	203,444	218,672	240,000
Baraguá.....	Baragua.....	Cía. Az. Baraguá.....	Manzana de Gómez, Habana.....	Cuban.....	E. G. Lee.....	430,107	408,580	440,904	481,327	500,000
Camaguey.....	Piedrecitas.....	Cía. Az. Camagüey.....	Manzana de Gómez, Habana.....	American.....	B. J. Ferro.....	117,825	118,833	132,341	110,769	145,000
Cespedes.....	Cespedes.....	Cía. Az. Cespedes.....	Barraque Bldg., Habana.....	Spanish.....	A. M. Douglas.....	122,930	118,825	232,082	270,000	300,000
Ciego de Avila.....	Ciego de Avila.....	Cía. Az. Ciego de Avila.....	Aguiar 71, Habana.....	Cuban.....	J. Mederos.....	146,053	103,122	137,500	129,370	150,000
Cunagua.....	Moron.....	Central Cunagua, S. A.....	Amargura 23, Habana.....	American.....	Antonio G. Mendoza.....	471,880	431,182	567,085	535,260	550,000
Elia.....	Elia.....	Cía. Az. Elia.....	Edificio Barraque, Habana.....	Cuban.....	S. C. Rionda.....	130,573	145,676	278,717	335,264	440,000
Estrella.....	Cespedes.....	Cía. Az. de Camaguey, S. A.....	Manzana de Gómez, Habana.....	Cuban.....	Antonio Perrera.....	187,464	227,451	205,485	234,681	300,000
Florida.....	Florida.....	Pta. Alegre Sugar Co.....	Obispo & Aguiar, Habana.....	American.....	L. B. Fox.....	260,417	308,083	266,660	292,232	340,000
Francisco.....	Francisco.....	The Francisco Sugar Co.....	Barraque Bldg., Habana.....	American.....	G. E. Crawley.....	340,948	385,847	388,336	339,600	380,000
Jagueyal.....	Jagueyal.....	Cuba Cane Sugar Corp.....	Barraque Bldg., Habana.....	American.....	J. Almellones.....	350,087	303,890	305,000	304,687	370,000
Jaronu.....	Jaronu.....	Central Cunagua, S. A.....	Amargura 23, Habana.....	Cuban.....	A. G. Mendoza.....	370,441	577,280	471,072	550,000	550,000
Jatibonico.....	Jatibonico.....	Compania Cubana.....	52 William St., New York.....	American.....	H. S. Schreiber.....	231,858	316,018	388,119	427,015	425,000
Lugareño.....	Lugareño.....	Eastern Cuba Sugar Corp.....	Barraque Bldg., Habana.....	American.....	J. S. Schreiber.....	234,014	256,774	273,050	278,410	350,000
Macareno.....	Macareno.....	Caribbean Sugar Co.....	P. O. Box 2259, Boston.....	American.....	R. S. Carpenter.....	54,394	111,000	128,383	150,000	150,000
Morón.....	Morón.....	Eastern Cuba Sugar Corp.....	Barraque Bldg., Habana.....	American.....	F. L. Blovin.....	580,979	584,105	600,833	774,000	.....
Najasa.....	Najasa.....	Cía. Az. Najasa, S. A.....	O'Reilly 11, Habana.....	Cuban.....	M. Leiva.....	13,040	110,000	112,557	140,680	140,000
Patria.....	Moron.....	Cía. Az. Ctral. Patria, S. A.....	Oficios 22, Habana.....	Cuban.....	Juan Roman.....	113,395	129,855	136,000	140,500	140,000
Pilar.....	Gaspar.....	Cía. Az. de Camaguey, S. A.....	Manzana de Gómez, Habana.....	Cuban.....	A. Jordan.....	51,193	129,181	137,500	114,567	200,000
Punta Alegre.....	Pta. San Juan.....	Punta Alegre Sugar Co.....	Obispo & Aguiar, Habana.....	American.....	J. D. McDowell.....	329,576	327,773	402,852	409,989	450,000
Santo Tomas.....	Camaguey.....	Cia. Operativa S. Tomas S. A.....	Manzana de Gómez, Habana.....	Cuban.....	G. C. Gorton.....	104,735	106,377	50,500	.....	Will not grind

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF CAMAGÜEY—Continued

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Esti- mated 1924-25 Crop
						1921	1922	1923	1924	
Senado.....	Senado.....	Bernabé Sánchez y Adán..	Central Senado.....	Cuban.....	P. Sánchez	221,069	297,145	250,000	304,001	310,000
Siboney.....	Virginia.....	Cía. Az. Siboney.....	O'Reilly 11 Habana.....	Cuban.....	R. L. Quinones .....	.....	.....	.....	.....	40,000
Stewart.....	Stewart.....	Eastern Cuba Sugar Corp.	Barraqué Bldg., Habana...	American....	G. Camacho.....	290,763	379,900	440,000	387,335	500,000
Velasco.....	Velasco.....	Eastern Cuba Sugar Corp.	Barraqué Bldg., Habana...	American....	J. Sanguily.....	.....	.....	.....	.....	150,000
Vertientes.....	Camagüey.....	Cía. Az. Vertientes, S. A....	Manzana de Gómez, Habana.....	Cuban.....	C. Alvarez.....	.....	21,827	102,876	237,906	340,000
Violeta.....	Violeta.....	Eastern Cuba Sugar Corp.	Barraqué Bldg., Habana...	American....	A. D. Ortiz.....	155,645	269,780	423,000	510,000	475,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF ORIENTE

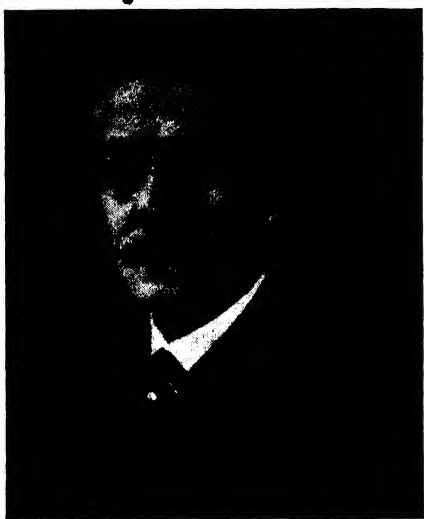
Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Almeida.....	Marimón.....	Federico Almeida.....	Banco Nova Scotia. Habana	Spanish.....	A. Navarro.....	36,633	164,228	130,053	177,003	225,000
Alto Cedro.....	Marcané.....	Sug. Estates of Oriente, Inc.	129 Front St., N. Y.....	American.....	J. E. Boykin.....	164,000	244,575	234,939	228,708	225,000
América.....	Santiago de Cuba.....	Ctral. America, S. A.....	Ctral. America, Ote.....	Cuban.....	J. W. Bolton.....	108,228	253,021	21,621	191,613	190,000
Báguanos.....	Cueto.....	Cia. Azuc. Antilla, S. A.....	Cueto.....	Cuban.....	M. Leonhard.....	93,861	161,049	.....	178,019	240,000
Borjita.....	Borjita.....	F. Almeida.....	Santiago.....	Cuban.....	E. J. Salis.....	61,884	91,744	63,469	76,912	80,000
Boston.....	Banes.....	United Fruit Co.....	131 State St., Boston.....	American.....	Harold Hartly.....	527,486	682,782	452,853	276,020	400,000
Cacocum.....	Cacocum.....	Cia. Azuc. Ctral. Cacocum.....	Nova Scotia Bank, Bldg. Habana.....	Cuban.....	M. Vazquez.....	22,303	16,230	62,446	41,200	50,000
Chaparra.....	Chaparra.....	Chaparra Sugar Co.....	129 Front St., N. Y.....	American.....	R. B. Wood.....	420,127	682,600	476,500	500,421	600,000
Cape Cruz.....	Ensenada de Mora.....	Cape Cruz Co.....	135 Front St., N. Y.....	American.....	G. R. Buchanan.....	106,210	104,927	51,522	80,542	100,000
Confluente.....	Guantánamo.....	Confluente Sug. Co., S. A.....	Apartado 156, Guantánamo.....	Spanish.....	M. Orta Toscano.....	43,328	52,676	Did not grind	.....	Will not grind
Cupey.....	Cupey.....	Sug. Estates of Oriente, Inc.	129 Front St., N. Y.....	American.....	M. R. Abbey.....	146,668	154,703	196,011	142,211	190,000
Delicias.....	Chaparra.....	San Manuel Sugar Co.....	129 Front St., N. Y.....	American.....	Ernesto Brooks.....	768,378	1,047,643	776,000	763,851	900,000
Dos Amigos.....	Campechuela.....	N. Castano.....	Cienfuegos.....	Spanish.....	H. P. Rodriguez.....	63,558	62,600	55,300	58,220	60,000
Ermita.....	Ermita.....	Ermita Sugar Co.....	Ermita.....	American.....	H. M. Hick.....	121,004	186,022	116,474	140,912	145,000
Esperanza.....	Guantánamo.....	Cia. Azuc. Oriental, Cubana	Ctral. Esperanza.....	Cuban.....	Antonio Arias.....	55,598	202,441	54,017	81,818	140,000
Estrada Palma.....	Yara.....	Cia. Estrada Palma, S. A.....	Empedrado 34, Habana.....	Cuban.....	W. G. Ames.....	.....	.....	.....	.....	25,000
Hatillo.....	Hatillo.....	Sta. Ana Sugar Co.....	Obispo 7, Habana.....	American.....	A. N. Mc Namara.....	105,499	132,704	100,000	106,360	125,000
Isabel.....	Guantánamo.....	Guantánamo Sugar Co.....	129 Front St., N. Y.....	American.....	A. E. Junghaus.....	63,644	102,590	Did not grind	.....	Will not grind
Isabel.....	Media Luna.....	Beattie Sugar Co.....	Apartado 69, Manzanillo.....	British.....	O. Nuñez Mesa.....	166,984	251,036	182,200	.....	.....
Jibacoa.....	Manzanillo.....	Godwall Maceo y Cia.....	Apartado 19, Manzanillo.....	Cuban.....	M. A. Centurion.....	39,625	88,980	Did not grind	.....	Will not grind
Jobabo.....	Jobabo.....	Compañia Cubano.....	52 William St., N. Y.....	Cuban.....	C. R. Stuntz.....	257,868	301,638	376,521	381,074	300,000
Los Caños.....	Guantánamo.....	Guantánamo Sugar Co.....	129 Front St., N. Y.....	American.....	G. M. Cooper.....	91,454	107,681	19,773	104,492	140,000
Mabay.....	La Julia.....	Cia. Azuc. Mabay.....	Manzana de Gómez, Habana.....	Cuban.....	J. G. Bohorques.....	45,463	74,038	67,700	93,411	100,000
Maceo.....	Maceo.....	Cia. Azuc. Arroyo Blanco.....	O'Reilly 27, Habana.....	American.....	N. E. Allen.....	.....	.....	7,000	38,610	50,000

TABLE OF ACTIVE SUGAR PLANTATIONS OF THE PROVINCE OF ORIENTE—Continued

Name of Plantation	Location	Owners	Owners' Address	Nationality of Owners	Administrator	OUTPUT IN BAGS				Estimated 1924-25 Crop
						1921	1922	1923	1924	
Manatí.....	Manatí.....	Manatí Sugar Co.....	112 Wall St., N. Y.....	American.....	E. D. de Uizurun..	400,400	450,393	534,628	540,524	550,000
Miranda.....	Miranda.....	Miranda Sugar Co.....	Manzana de Gómez, Habana.....	American.....	J. Arkel.....	131,564	265,826	267,000	370,425	425,000
Niquero.....	Niquero.....	New Niquero Sugar Co.....	129 Front St., N. Y.....	Cuban-American.....	R. Narganes.....	175,261	270,886	213,376	208,491	225,000
Oriente.....	Xavier.....	Cía. Azuc. Oriente, S. A.....	Círal, Oriente.....	Cuban.....	F. E. Thurston.....	123,097	153,142	126,787	161,670	160,000
Palma.....	Palma.....	Sug. Estates of Oriente, Inc.....	129 Front St., N. Y.....	American.....	P. G. Bishop.....	264,663	211,642	241,690	300,133	280,000
Pennsylvania.....	Manzanillo.....	Pedro Zaralegui.....	Círal, Pennsylvania.....	Cuban.....	.....	.....	.....	.....	4,721	Uncertain
Preston.....	Preston.....	United Fruit Co.....	1 Federal St., Boston.....	American.....	W. W. Schuyler.....	543,500	702,181	378,275	475,782	500,000
Presidente.....	Rev.....	Cía. Azuc. Círal, Presidente.....	Bco. Nacional, Habana.....	Cuban.....	M. Arias.....	37,132	53,195	80,897	63,838	100,000
Río Cauto.....	Río Cauto.....	Cuban Canadian Sugar Co.....	68 William St., N. Y.....	Cu-Canadian.....	Geo. T. Walker.....	165,538	207,580	175,722	181,703	210,000
Romelie.....	Guantánamo.....	Central Romelie, S. A.....	P. O. 289, Guantánamo.....	British.....	Francisco de Pando.....	56,979	72,135	30,500	48,023	60,000
Salvador.....	Calicito.....	Godwall Macco & Co.....	Apartado 19, Manzanillo.....	Cuban.....	R. D. Escobar.....	64,291	.....	72,470	82,821	80,000
San Antonio.....	Yateras.....	Sucs. de Luis Redor.....	Apartado 124, Guantánamo.....	French.....	A. P. M. de la Oca.....	51,390	89,407	39,300	55,740	70,000
San Germán.....	San Germán.....	Fidelity Sugar Co.....	Aguir 86, Havana.....	Cuban-American.....	J. Giamelloni.....	7,352	60,775	154,500	120,324	160,000
San Ramón.....	San Ramón.....	Genaro Fernandez.....	Manzanillo.....	Cuban.....	G. Fernandez.....	42,053	48,273	20,969	12,210	15,000
Santa Ana.....	Auza.....	Sta. Ana Sugar Co.....	129 Front St., N. Y.....	American.....	Walter Wedde.....	59,527	107,370	88,668	91,591	120,000
Santa Cecilia.....	Guantánamo.....	Sta. Cecilia Sugar Corp.....	67 Wall St., N. Y.....	American.....	H. Haget.....	59,960	88,334	40,077	41,871	50,000
Santa Lucia.....	Santa Lucia.....	Sta. Lucia Sugar Co., S. A.....	Sta. Lucia, Oriente.....	Cuban.....	A. DuBouchet.....	356,463	307,069	155,401	181,222	250,000
Sofía.....	Veguita.....	Sucs. de H. Alsina.....	Veguita, Oriente.....	Cuban.....	E. Alsina.....	23,168	24,047	40,885	37,286	55,000
Soledad.....	Guantánamo.....	Guantánamo Sugar Co.....	129 Front St., N. Y.....	American.....	J. R. Lougher.....	98,823	141,665	105,207	93,201	120,000
Tacajó.....	San Geronimo.....	Cía Azuc. Antilla, S. A.....	Cueto.....	American.....	J. B. Stewart.....	124,777	317,000	125,999	142,333	200,000
Tánamo.....	Sagua de Tanamo.....	Atlantic Fruit Co.....	17 Battery Pl., N. Y.....	American.....	E. G. Middleton.....	.....	235,911	151,046	171,491	250,000
Teresa.....	Ceiba Hueca.....	Cental, Teresa Sug. Co.....	1213 Munsey Bldg., Balto.....	American.....	J. R. Bigger.....	61,454	57,665	47,600	57,871	65,000
Unión.....	San Luis.....	Cía. Azuc de Santiago.....	Santiago de Cuba.....	Cuban.....	J. Rousseau.....	63,000	92,750	47,151	70,000	75,000

SUMMARY OF ACTIVE PLANTATIONS BY PROVINCES 1924-1925

	EUROPEAN OWNERSHIP		AMERICAN OWNERSHIP		CUBAN OWNERSHIP		ACTIVE MILLS	
	1924	1925 est.	1924	1925	1924	1925	1924	1925
PINAR DEL RIO.....	191,289	230,000	120,798	140,000	607,777	710,000	10	10
HAVANA.....	208,415	205,000	948,214	1,035,000	1,151,938	1,250,000	17	16
MATANZAS.....	208,807	230,000	1,986,906	2,170,000	1,214,562	1,368,000	28	28
SANTA CLARA.....	1,255,532	1,405,000	1,193,573	1,540,000	3,677,611	4,102,000	54	54
CAMAGÜEY.....	553,385	600,000	4,833,775	5,085,000	2,808,040	3,310,000	26	26
ORIENTE.....	724,694	850,000	4,667,349	5,435,000	1,986,630	2,220,000	43	42
TOTAL.....	3,142,122	3,520,000	13,750,615	15,405,000	11,436,558	12,960,000	182	180



Glenn Grenville Howe

Link-Belt Company

On Christmas day, 1924, Mr. Glenn Grenville Howe, for many years Senior Vice President of the Link-Belt Company, passed away at his home in Muskegon, Mich., after a long illness.

His first connection with the Link-Belt organization was as a 16 year old office boy in 1877. Following his mechanical bent he drifted into the manufacturing department, and later became the Superintendent of the Ewart Manufacturing Company.

He knew the chain business thoroughly in practice and theory, and his connection with it was marked by several important improvements.

When the three related interests, the Ewart Manufacturing Company, the Link-Belt Machinery Company and the Link-Belt Engineering Company, were merged into one, as the Link-Belt Company, in 1906, Mr. Howe became Vice President, in charge of the Company's Indianapolis operations.

It was under his directions that the Belmont Malleable Iron Foundry, and Ewart assembly plant were built, in 1913; and he continued as Senior Vice President until failing health led to his retirement from active business.

Later, with returning health, he organized the Howe Chain Company, at Muskegon, Mich., serving as President of an organization which became a decided factor in chain making, through its thorough knowledge of the art.

About the end of 1923 Mr. Howe was stricken with the illness which finally resulted in his death. The sale of the Howe Chain Company to the Link-Belt Company was made in January, 1924, and the Muskegon plant is now operated as the Howe Chain Plant of the Link-Belt Company, specializing in chain manufacture, along the lines so successfully established under Mr. Howe's experienced directions.

Mr. Howe was a wise counselor, gifted with a deep fund of practical philosophy that appeared constantly in apt simile or pertinent aphorism. He was very capable, and his opinions on manufacturing, accounting and selling problems were always sound, and his statement of them convincing.

Sugar in Hungary

A special report issued by the U. S. Department of Commerce concerning the sugar industry of Hungary, says:

The estimated production of the 10 sugar refineries operating in Hungary during the fiscal year 1923-24 was 122,588 metric tons of refined sugar, an amount representing 67 per cent of the maximum capacity of the plants, with an estimated value of \$24,517,600. By the close of the calendar year 1923, 36,500 metric tons of surplus sugar had been exported. The production of sugar in the fiscal year 1922-23 was 81,882 metric tons, of which 36,500 tons were exported.

A regular sugar tax on the selling price of sugar is collected, but during and since the war the Government has also collected a "profit participation" tax, which amounts to nearly 32 per cent of the price of sugar. This tax is levied on all sugar consumed in the country, whether of domestic or foreign origin, and consequently forms an important source of revenue to the Government.

Cuba Company Dividend

The Cuba Company declared the regular semi-annual dividend of 3½ per cent on the preferred stock of the company, payable February 2 to stock of record December 31, and a quarterly dividend of \$1 per share on the common stock, payable March 2 to stock of record February 16.

Sugar Review

Specially written for the THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated December 31, 1924. As usual when prices of Cuban Centrifugals go below the basis of 3c c. & f., interest is immediately felt in various parts of the world, and this season has been no exception, as the United Kingdom refiners particularly have been quite interested in purchasing Cuban sugars and it is now estimated that they have bought 150,000 tons for January, February and March shipment. In addition to these purchases, the Continent has bought Cuban sugars and the Far East is, also, commencing to show definite interest in the market, as Japan has purchased a quantity of Cubas estimated to reach 20,000 tons, for shipment during February and early March. These latter purchases were chiefly on the basis of 2.62c f. o. b. Cuba. Our refiners, who started off the first of the year with very small stocks, also showed no hesitancy in purchasing Cubas as long as they were below 3c c. & f., and while their spot supplies are not quite satisfactory, owing to slow arrivals, their purchases ahead have been quite ample. These purchases by our refiners have been sufficient to take care of most of the January Cuban production and this had a tendency to keep prices quite steady. On the first of the year Cubas were 2 13/16c c. & f. and on the 5th there was a sale of Cuba sugars from store at 3c c. & f. From this latter price the market slowly declined to 2 3/4c c. & f., and at this writing is again back to 2 13/16c c. & f.

As mentioned in our last report, Cuban crop production has gone ahead much faster than was generally expected and although this effected the December position quite unfavorably, it has shown no particular harm to the January positions.

On January 8th, we published our Annual Report covering the statistics of the United States for the year 1924, and the consumption of sugar as calculated by us caused quite some disappointment, as during most of the year it was generally expected that the consumption would reach a figure of 5,000,000 tons, but as it actually out-turned the consumption figure was 4,854,479 tons, compared with 4,780,684 tons last year. We quote from our Weekly Statistical Sugar Trade Journal of January 8, 1925, an explanation of this decrease.

"Indications this Autumn, as the year approached its end, were that the 1922 figure of consumption (5,092,758) would be reached or perhaps slightly exceeded, but the unsettlement of the sugar markets made consumers refrain from buying as prices were declining and quotations for future deliveries, that is during the early months of 1925, were considerably lower than spot prices and to these features is largely attributable the fact that the large figure of 1922 was not attained."

REFINED.—During the period under review prices of refined sugar were adjusted more in accordance with raw sugar prices. It will be remembered that during the latter part of December and early January, refiners were using raw sugars that cost considerably more than the prices at which new crop sugars were obtainable, that is to say, their purchases during December, and which they were using for meltings, cost over 4c c. & f., while actual Cuban sugars for shipment were obtainable at 2 13/16c c. & f. For this reason refiners were reluctant to reduce prices until they had to, but at the present writing they are more in accordance with the raw sugar market, Granulated sugar being quoted at 6.25c less 2%. The demand for refined has not shown much improvement, but there has been steady buying for actual wants. Many of the Trade, however, are watching the situation closely and undoubtedly there will be a period when prices will be low enough to induce considerable buying on the part of wholesale grocers, manufacturers, etc.

We mentioned last month the negotiations between the American Sugar Refining Co., and the National Sugar Refining Co., in regard to a proposed merger of these two Refining Companies, but since that time the Attorney General of the United States,

Honorable Harlan Fiske Stone, has issued a report, of which we give a copy herewith. This report, of course, finally stopped the negotiations and the question of the merger is now ended:

"When application was made to me for my consent to a modification of the decree in the case of United States v. American Sugar Refining Company which would permit of such acquisition, I caused a careful investigation to be made of the considerations presented in justification of the proposal. This inquiry did not disclose such a change in competitive conditions in the sugar industry since 1922 (when the decree was entered) as to warrant my consent to the proposal. I conceive it to be my duty to uphold decrees under the Sherman Law, especially where there is no showing of a radical change in the conditions upon which they were entered, rather than attempt to substitute my judgment for the wisdom of my predecessors and of the courts which entered such decrees.

"Under the decree in this case, however, there is reserved to the companies in question the right to apply to the United States District Court for such a modification based upon a showing of changed conditions, so that the question may be judicially determined."

New York, N. Y., January 19, 1925.



Cane Conveyors—Central Miranda, Oriente, Cuba

Revista Azucarera

Escrita especialmente para la SUGAR REVIEW por Willet & Gray, de Nueva York.

Nuestra última revista estaba fechada el 31 de diciembre de 1924. Como de costumbre cuando los precios del azúcar centrífugo de Cuba bajan de la base de 3c. costo y flete, inmediatamente se muestra animación en el mercado en varias partes del mundo, y esta estación no ha sido una excepción, pues particularmente los refinadores de la Gran Bretaña han estado bastante interesados en comprar azúcares de Cuba, y se calcula ahora que han comprado 150,000 toneladas para embarques de enero, febrero y marzo. Además de estas compras, el Continente europeo han comprado azúcar de Cuba, y en el Oriente también empiezan a mostrar sumo interés en el mercado, pues el Japón ha comprado una cantidad de azúcar de Cuba que se calcula llega a 20,000 toneladas para embarques durante febrero y principios de marzo. Estas últimas compras fueron principalmente bajo la base de 2.62c. libre a bordo Cuba. Nuestros refinadores, que empezaron a principios del año con muy pocas existencias, tampoco vacilaron en comprar azúcar de Cuba cuando los precios eran más bajos de 3c costo y flete, y aunque sus existencias en manos no son bastante satisfactorias, debido a las tardías llegadas, sus compras por adelantado son bastante grandes. Estas compras por nuestros refinadores han sido suficientes para hacerse cargo de la mayor parte de la producción de azúcar de Cuba en enero, y esto ha tenido tendencia a conservar los precios bastante estables. El primero del año el azúcar de Cuba era 2 13/16c. c. y f., y el día 5 tuvo lugar una venta de azúcar de Cuba de almacén a 3c. c. y f. De este último precio el mercado bajó paulatinamente a 2 3/4c. c. y f., y al escribir esta reseña a vuelto otra vez a 2 13/16c. c. y f.

Como dijimos en nuestra última revista, la producción de la zafra de Cuba ha continuado mucho más deprisa de lo que se esperaba generalmente, y aunque esto afectó la situación del mercado en diciembre de una manera bastante desfavorable, no ha mostrado perjuicio particular a la situación en enero.

El 8 de enero publicamos nuestro Informe Anual comprendiendo la estadística de los Estados Unidos para el año 1924, y el consumo de azúcar según nuestro cálculo causó bastante desanimación, pues durante la mayor parte del año se esperaba generalmente que el consumo llegaría a 5,000,000 de toneladas, pero verdaderamente resultó que el consumo fué 4,854,479 toneladas comparado con 4,780,684 toneladas el año pasado. Citamos de nuestra "Revista Semanal de la Estadística del Comercio de Azúcar" del 8 de enero de 1925 una explicación de esta disminución:

"Los indicios este otoño, a medida que el año se aproximaba a su fin, eran que se llegaría al consumo de 1922 (5,092,758 toneladas) o tal vez se excedería en algo, pero la inestabilidad de los mercados de azúcar hizo que los consumidores se abstuvieran en comprar pues los precios estaban bajando y las cotizaciones para entregas futuras, es decir durante los primeros meses de 1925, eran mucho más bajas que los precios del azúcar a mano, y a estas circunstancias se atribuye en gran manera el hecho de no conseguir las cifras del año 1922."

REFINADO.—Durante el período bajo reseña los precios del azúcar refinado se han fijado más de acuerdo con los precios del azúcar crudo. Se recordará que durante fines de diciembre y principios de enero los refinadores estaban usando azúcar crudo que costaba mucho más que los precios a que podía conseguirse el azúcar de la nueva zafra, es decir, sus compras durante diciembre, y cuyo azúcar estaban usando para la elaboración, costaba más de 4c. c. y f., mientras que el azúcar de Cuba para embarcar se conseguía a 2 13/16c. c. y f. Por este motivo los refinadores no estaban muy dispuestos a rebajar los precios hasta verse obligados a ello, pero al presente están más de acuerdo con el mercado de azúcar crudo, cotizándose el azúcar granulado a 6.25c. menos 2%. La demanda por el azúcar refinado no ha mostrado mucha mejoría, pero ha habido compras constantes para necesidades actuales. Muchos en el comercio de azúcar, sin embargo,

están vigilando de cerca la situación e indudablemente habrá un período en el cual los precios serán bastante bajos para inducir considerablemente las compras por parte de las tiendas de comestibles al por mayor, fabricantes, etc.

Mencionamos el mes pasado las negociaciones entre la American Sugar Refining Co. y la National Sugar Refining Co. respecto a la proposición de unir estas dos compañías refinadoras, pero desde entonces el Apoderado General de los Estados Unidos, el Honorable Harlan Fiske Stone, ha emitido un informe el cual copiamos a continuación. Por supuesto, este informe finalmente interrumpió las negociaciones y el asunto de esa unión ya ha terminado.

"Cuando me sometieron una solicitud para mi consentimiento a una modificación del decreto en el caso de los Estados Unidos contra la American Sugar Refining Company que permitiera tal adquisición, hice se llevara a cabo una minuciosa investigación de las consideraciones sometidas en justificación de la proposición. Esta investigación no mostró tal cambio en el estado de competencia en la industria del azúcar desde 1922 (cuando se emitió el decreto) que justificara mi consentimiento a la proposición. Convido ser mi derecho el sostener decretos bajo la Ley Sherman, especialmente cuando no se muestra un cambio radical en las condiciones sobre las cuales se emitieron los decretos, más bien que atentar a substituir mi fallo por la sabiduría de mis predecesores y de los juzgados que emitieron tales decretos.

"Sin embargo, bajo el decreto en este caso, a las compañías interesadas se les reserva el derecho de acudir a la Corte de Jurisdicción de los Estados Unidos para tal modificación basada en que se muestre haber cambio en las condiciones, para que pueda determinarse judicialmente ese asunto."

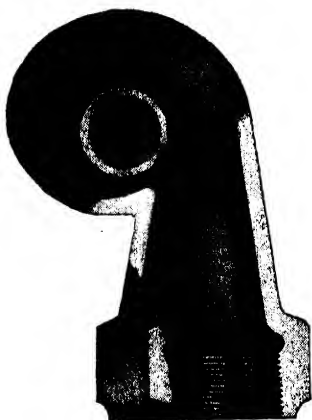
Nueva York, enero 19 de 1925.

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Please mention THE CUBA REVIEW when writing to Advertisers

Spray Nozzles for Cooling Water



The YARWAY Single Involute Spray Nozzle, a greatly improved type for cooling purposes, was described in the March issue of this magazine last year. The illustration shows the general construction. Whirling motion is given to the water by the shape of the casing, instead of by vanes, and the hole in the top is so located that a perfect cone of spray is formed. This nozzle does not have to be taken off for cleaning as there are no vanes to catch the foreign matter. The free passage also cuts down friction and at the same pressure a YARWAY head will throw the water higher than other types and with better cooling results. A special fitting has been designed called the *YARWAY Hump Tee*. This combines the ordinary "Spray Tee," "Distributor," or "Spray Fitting" and the 4-inch Galvanized iron pipe nipple all in one

casting. This fitting makes a better pond layout, reduces installation expense, upkeep, and assures alignment. YARWAY Spray Nozzles use STRAIGHT Spray Arms. This simplifies replacement problems.

In 1923, Cuba Cane Sugar Company purchased 13,500 gallons per minute of YARWAY Nozzles. In 1924, 25,000 g. p. m. The new ponds at Velasco and LaJulia are equipped complete with YARWAY Nozzles and Hump Tees. In 1923, Czarnikow-Rionda Company purchased 4,800 g. p. m. for Central Francisco. In 1924, 14,400 g. p. m. for Francisco and 4,000 for Elia. In 1923, West India Sugar Finance made some tests, and in 1924 they purchased YARWAY Nozzles as follows:—

Central Palma.....	2,000 g. p. m.
Central Santa Ana....	2,880 g. p. m. 12 Hump Tees
Central America.....	3,600 g. p. m. 16 Hump Tees
Central Cucey.....	6,000 g. p. m.
Central Barahona	
(Santa Domingo) ..	2,400 g. p. m. 12 Hump Tees

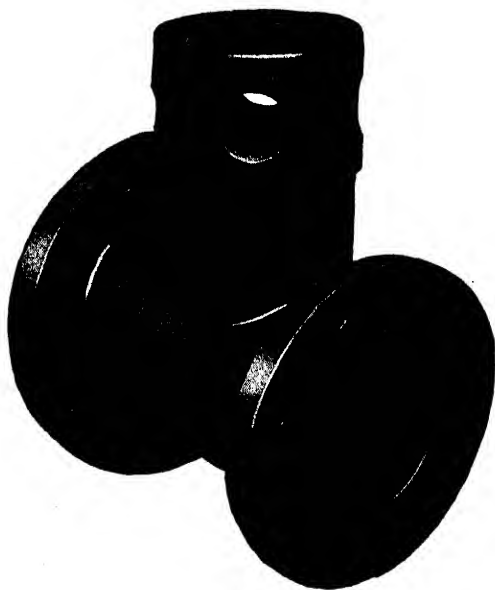
Other interesting orders in 1924 are:—

E. Atkins Co. (Central Senado)	2,000 g. p. m.
Porto Rico International Corp. (Central Juncos P.R.).....	3,000 g. p. m. 14 Hump Tees

Honolulu Iron Works specified the following:

Warner Sugar Co. (Central Miranda).....	1,800 g. p. m. 9 Hump Tees
Vertientes Sugar Co. (Central Vertientes).....	16,800 g. p. m. 81 Hump Tees
Latin American Sugar Co. (Southern Mexico).....	3,600 g. p. m. 18 Hump Tees

The Yarnall-Waring Company, manufacturers of "YARWAY Products for the Power Plant," 142 Cedar Street, New York City, N. Y., will be glad of an opportunity to assist in solving cooling problems of any nature.



THE CUBA REVIEW

"ALL ABOUT CUBA"

An Illustrated Monthly Magazine, 67 Wall Street, New York

MUNSON STEAMSHIP LINE, Publishers SUBSCRIPTION

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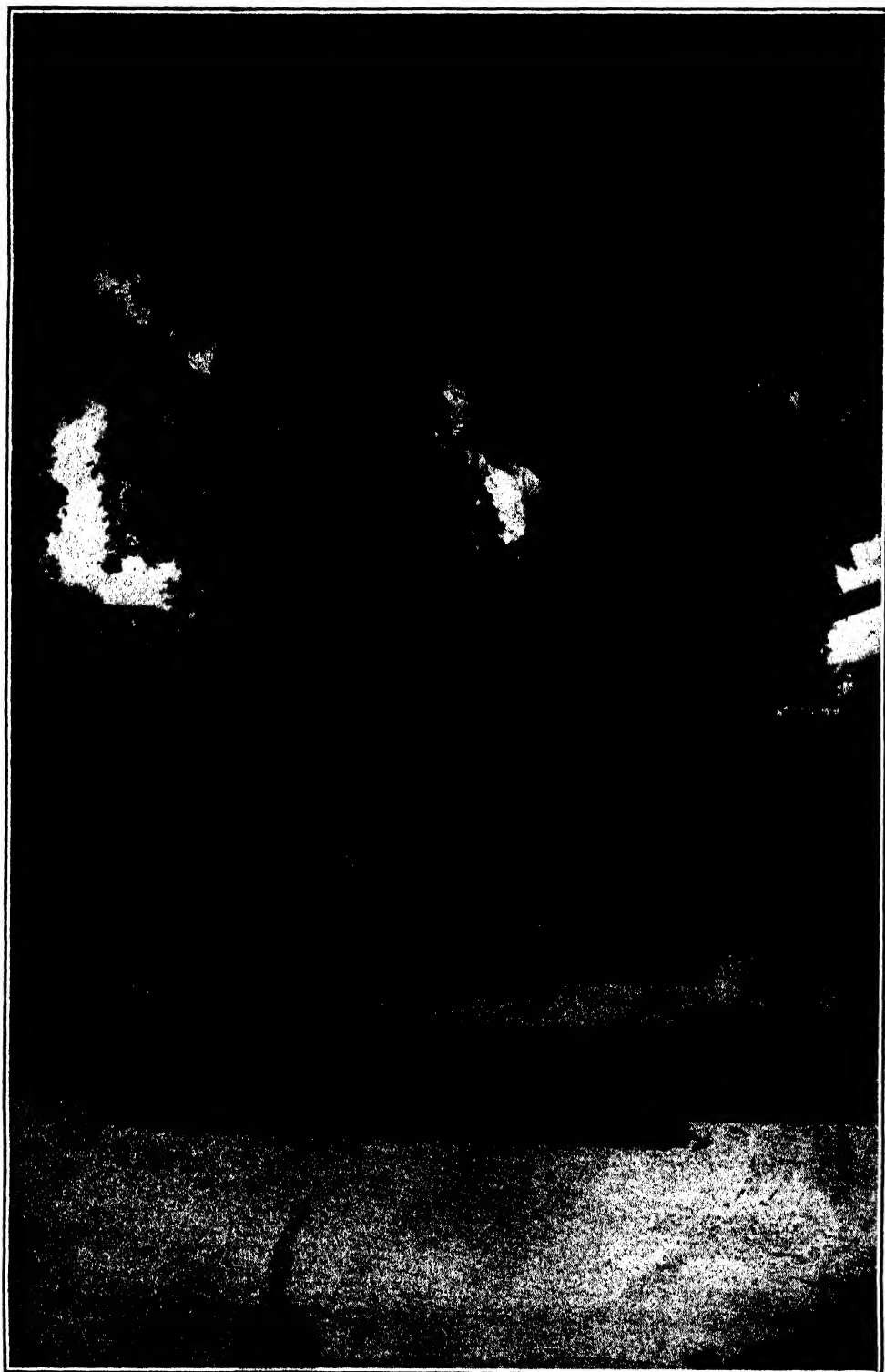
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March, 1925

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Roosevelt Monument, Santiago de Cuba

THE CUBA REVIEW

"ALL ABOUT CUBA"

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VOLUME XXIII

March, 1925

NUMBER 4

Cuban Government Matters

Manufacturer's Invoice Required on Ad Valorem Shipments

In all cases of shipment of merchandise subject to ad valorem duties in Cuba the original manufacturer's invoice must be presented to the consul, according to a presidential decree published in the *Official Gazette* of December 23. The following requirements are specified:

In all cases where shipments of merchandise are dutiable ad valorem when the manufacturer makes the shipment directly, his original invoice shall be presented to the consulate for legalization, and thereon shall appear the statement under oath before a notary public that the value shown is the true price of the merchandise, including other necessary expenses for its shipment to Cuba.

When the shipment of merchandise which is assessed ad valorem is made by an agent, commission merchant or shipper, and the latter presents his invoice for consular certification, this invoice must be accompanied by the invoice of the manufacturer.

The customs administrators of the Republic shall not accept invoices for merchandise subject to ad valorem duties which do not fulfill the preceding requirements, and in case the importer cannot present this invoice with the respective declarations they shall require that the

necessary bond be provided to guarantee later presentation by the importer of the document. (Trade Commissioner C. A. Livengood, Habana.)

[The object of this regulation is to maintain a check on the accuracy of consular invoice valuations.]

Good Roads Campaign

The Transportation Committee of the National Federation of Economic Corporations (Comisión de Transportes de la Federación Nacional de Corporaciones Económicas) of Habana held a session in November, 1924, during which resolutions were passed to the effect that the concrete type of road, so successfully tried out in the United States, be recommended to the Secretary of Public Works and adopted as the most practical; that an appropriation be obtained from Congress for the repair and upkeep of all roads on the island; and that a bill be presented in the House of Representatives revoking the import tax on gasoline.

Second Women's National Congress

During a session of the National Federation of Women's Associations held in November, 1924, it was decided that the Second National Women's Congress would convene in April, 1925, in Havana.



Dr. Francisco Fernandez, President University Club, Havana

The University Club

One of the youngest, as well as one of the most cosmopolitan clubs, and one which is growing fast in popularity, is the University Club of Havana, which recently celebrated its third anniversary. It was founded in February, 1922, by sixteen alumni representing seven universities. The first meeting took place in November, 1922, and the membership increased rapidly and at the present time it numbers more than three hundred members, principally from universities in the United States and the Havana University. One member comes from Australia, being a graduate of Adelaide University. There are many American members, among them being Dean Harry Beal of the Holy Trinity Cathedral in Havana; C. R. Kear, M. M. McGovern and Harry C. Newcomb, all graduates of the United States Naval Academy; Walter E. Ogilvie, graduate of Hamilton; Charles W. Ricker and Frank Steinhardt, Jr., graduates of Yale; C. C. Ulbricht of Cornell and Ernest Rapleje of Rutgers College. Dr. Guillermo Patterson y Jauregui is also

a member. He is Assistant Secretary of State and has held that office for many years. Recently he went to Geneva as envoy from the Cuban Government.

While the club's chief purpose is to keep alive love of alma mater among its members and to encourage their social and cultural life, it extends a welcome to visiting college and university graduates from all over the world.

Many eminent speakers have addressed the members at the meetings, and the weekly gatherings for sociability are both interesting and pleasant.

Cuban Cooperation with League of Nations

By decree No. 1225, of September 8, 1924, a bureau was established in the Department of State, Habana, to have charge of the dispatch of all subjects related to the Secretariat and other organizations of the League of Nations in so far as Cuban participation is concerned.

Ibero-American Union

On November 22, 1924, a branch of the Unión Ibero-Americana of Spain was established in Habana, the purposes of which are to study commercial, copyright, arbitration, civil and penal legislation treaties between Spain and the Hispanic American countries; to obtain the reciprocal recognition of degrees obtained in universities for the free practice of professions; to facilitate telegraphic, postal and steamship communication, and propose treaties for the safe and rapid circulation of correspondence, magazines, books, and the interchange of the products of these countries; to hold conferences and give lectures on subjects which interest the members of the association; to organize congresses and attend those held in other countries in order to come to a practical understanding on the subjects discussed; and to employ the most effective means of increasing and strengthening relations of every nature between Spain and the Hispanic American countries, overcoming prejudice with mutual friendship and confidence, that united they may obtain the realization of their aspirations.—*Pan-American Union*.

Cuba Honors Roosevelt

Additional cordiality marks the relations between Cuba and the United States as a consequence of the recent unveiling of a bust of Colonel Theodore Roosevelt at Santiago de Cuba. Affectionate tribute was paid to the memory of the former leader of the Rough Riders, and Cuba freely acknowledged her debt to the great American, not only for his service under arms, but for his subsequent efforts to help her achieve complete independence.

President Zayas undoubtedly spoke for his people when he declared that the love and devotion of the Cubans for Theodore Roosevelt would live in their hearts longer than the bronze bust and granite base dedicated to his memory.

Major General Harbord, who spoke for President Coolidge, expressed the view of all Americans when he said that Cuba was so near to the shores of the United States that Americans could never be indifferent to misfortune or misgovernment within its limits. It was President Roosevelt who demanded and obtained from Congress the tariff reciprocity which gave Cuba a measure of the prosperity which she now enjoys. He was interested in the sanitary cleaning of Havana and displayed his regard for the country in many other ways.

A more ideal site could not have been chosen for this monument which stands on an elevation at the intersection of Avenida Roosevelt and Avenida de la Republica, in the direction of San Juan Hill. The bust was designed by James Earl Fraser, and the pedestal, of Rock Creek granite, is the work of Henry Bacon. On it is carved the following line from one of Roosevelt's essays:

"Only those are fit to live who do not fear to die."

Cuba's Public Schools

According to a statement published by the Educational Department, 282,277 children attended classes at the public schools in Cuba during November, 1924. Of this number 210,535 were white and 71,742 colored, 139,011 were boys and 143,266 girls. There were 1,396 schools with 6,294 • classrooms.

United States Trade with Cuba

According to Commerce Reports, the year 1924 has been, in the main, a favorable one for Cuba, notwithstanding unfavorable factors at various times which were detrimental to business. Such a one was the political uncertainty incident to a presidential election year. Others were the various strikes, the most serious being the railroad tie-up in June. In general, however, the effects of these difficulties have been temporary, and the year has shown results which, as a whole, are satisfactory.

The 1923-24 sugar crop reached a record total of approximately 4,060,000 tons, and was marketed at a price which yielded a fair return. The price fell off after the first few months, but during the last half of the year has a strengthening tendency. At the beginning of the 1924-25 season the outlook is encouraging for a crop equal to that of last year, and for satisfactory prices.

The improved financial situation of the Republic is reflected in increased revenues, and in the transactions of the Habana clearing house, which amounted to \$908,032,691 for the first ten months of the year, exceeding those of the corresponding period of 1923 by \$194,550,558. Importations, as reflected by customs receipts, have considerably exceeded those of last year.

The 1924 trade of the United States with Cuba is expected to approximate \$600,000,000, as compared with \$568,881,000 in 1923.

Tribute to Motherhood

On November 30, 1924, a dinner was given under the auspices of the Rotary Club of Habana in the garden of the Tropical Hotel, in honor of 20 mothers who received first prize in the national maternity contest. The dinner was also attended by the doctors of the Child Hygiene Service of the Health Department, the nurses' corps, the national maternity judges of the contest who awarded the prizes, and the members of the club, each mother receiving as a gift a fully equipped cradle.

Havana Correspondence

Sugar still is king in Cuba, but there is no disguising the fact that his subjects find it rather difficult to smile. The average price of 4.45 cents received during the two preceding years brought about a feeling of security and promise that encouraged increased planting and we are now paying the penalty with sugar selling at 2.80. Only once in the past ten years has the price fallen below three cents, while the average price during the period was 4.80. This would seem to justify a faith that it would not go below three, but the result proved that our faith was unfounded.

It seems a pity that those staple products on which economic life depends cannot in some way be removed from the gamble of chance. Or that the law of supply and demand cannot be so regulated as to have the producers of such commodities as wheat, corn, sugar, cotton, wool, coal, etc., from working under the shadow of possible loss. As it is today every farmer or producer in the world is compelled to struggle with the uncertainties of climatic conditions, drought, flood, frost, winds, disease and a dozen other dangers which his calling as an agriculturist compels him to face. And even when all these uncertainties are in his favor, as usually happens in Cuba, he has the inevitable question of market prices with which to contend, and this may make or break him.

Wheat in the United States was saved by a miracle, the price suddenly jumping from less than a dollar up to \$2.50 per bushel. Just why this sudden boom in that staple of the Northwest came when it did has not been told us, but with it went also corn, oats and other foodstuffs, all of which we have to buy in Cuba with our cheap sugar. A planter of Pinar del Rio Province, who increased his acreage of cane last year, remarked with bitterness that he would have done much better if he had left his hundred acres of woodland uncleared. "I could have sold the timber on that tract to the breadmakers and made more money off of it than I will get for my cane."

The additional acreage of cane in Cuba, with more land planted with beets in the United States, both encouraged by 4-cent sugar in '23 and '24, increased, of course, the supply of sugar in the world market, and the price fell. If it had stopped at three cents most of the mills now grinding in Cuba would break even this year, a few, favorably situated, would make money, but as long as the price remains below three cents the majority of the mills will lose money on every pound they grind.

The increased production by province, over that of the previous year, is: Pinar del Rio, 10.29%; Havana, 29.92%; Matanzas, 13.56%; Santa Clara, 20.63%; Camaguey, 6.68%; Oriente, 9.20%. And for this increase we are today paying the penalty. We gambled on increased consumption to offset increase in production and we lost. That is all, but that all means everything to the prosperity of Cuba. Our remedy is not to have all of our eggs in one basket, and we will gradually reach the goal, but it will require time, capital and education.

Aside from wheat flour, we can raise or produce almost everything we consume in Cuba, and, for that commodity even we have an excellent substitute in banana flour if we cared to adopt it. We are at present importing from the United States some \$20,000,000 worth of pork and pork products every year, notwithstanding the fact that we can raise pork and make better hams in this country cheaper than it can be done in the North. We can grow cotton and produce silk in sufficient quantities easily for our home consumption. Angora goats, the source of mohair, so much worn in warm climates, thrive wonderfully well in our mountains. Of hides and tanning materials we have an abundance. We import millions of dollars' worth of poultry and eggs every year in spite of the fact that they can be produced more economically here than abroad.

We have simply gotten into the habit of making only cane sugar in Cuba and exchanging it for the above-mentioned articles, but if the competition of beet sugar ultimately drives us out of the market, we can still live and enjoy more comforts than most places on this mundane sphere. In climate, soil, rainfall and natural resources we are as rich, if not richer, than any other civilized section of the globe. So why worry?

It is true that we like to trade with our neighbors on the North, but Uncle Sam, in looking out for his children in Utah and some parts of the West, has established a so-called protective tariff that seems to us a little tough.

There is a rainbow of hope, however, across the Atlantic. The extremely low price of sugar in Cuba has caught the attention of Europe, and England recently bought of us quite liberally. Some forty thousand tons have been sold to Great Britain during the present month and we have the promise of more purchases in the near future. It would seem that there are some sections of Europe that are short on sugar, and England has undertaken to buy cane sugar in Cuba and distribute it among her neighbors. This, of course, will help. And in the last analysis the price of wheat, or almost any article of export, in London really fixes or regulates the price in New York.

There is a rumor current that England is endeavoring to add a few more mills to her one lonely beet sugar factory at home. There is work for our Minister on the other side. He should try to persuade Johnny Bull to let us furnish him with all his sweet stuff, while we agree to reciprocate by buying of him an equivalent value of his cotton goods, fine woolen cloths, etc. The nation that sells must also buy or there is no trade, no commerce, no business. These matters will adjust themselves sooner or later, but in the meantime the low price of sugar is teaching us a lesson that is anything but sweet.

Fate, too, has rather rubbed it into us in the vegetable market this winter. The season that started so well with lima beans, tomatoes, etc., was suddenly blocked by the extremely cold weather in the United States. Shipments that sold last year from \$5 to \$12 per crate suddenly dropped to \$4, with but few purchasers. This, we are told, came as a result of the heavy snows and extreme cold that made it almost impossible for consumers to reach the local markets. It was safer to open a can of tomatoes in the kitchen than risk one's life in going to the corner store for fresh ones from Cuba.

The experiments that have been made this winter in growing limas, peppers, tomatoes, eggplants, etc., in Pinar del Rio Province have been very encouraging, and the growers of that section are preparing to extend the acreage of winter vegetables next season, especially in those sections where irrigation from rivers is available. In the San Cristobal district, however, winter showers have been so plentiful that irrigation has been unnecessary. Several planters from the Bahama Islands are here at present, looking over the ground for next season. Fortunately there is still land in Pinar del Rio that has not been put into cane.

February will probably prove a record-breaking month in the number of tourists that have fled from the exceptional cold in the United States. Passing along any of the more important streets one can frequently count more American faces than Cuban, while the sound of English, spoken on every side, would suggest a sudden transition to either Boston or Chicago on a pleasant day in May or June. It is rather interesting to note the careful scrutiny bestowed on women from the North in search of something new in fashion or material. Nearly all excursion steamers from both the United States and Europe stop over a few days in Havana, and not a few passengers have remained to enjoy the carnival season with its reckless gaiety.

To those who have returned to Cuba after a few years' absence, the most striking change is in the skyline. From the third floor of the Department of Agriculture, or from the Chamber of Commerce, three years ago, one could easily see the shore of the Gulf, the new residences of Vedado, the tall trees of the Botanical Gardens, the stately royal palms towering up over El Cerro, or the suburban hills of La Vibora. But no more. The array of handsome, six, eight and ten story buildings that were put up last year have given us an entirely new and greatly reduced skyline. And the erection of office buildings, banks and apartment edifices still goes on. Capital invested not only pays big dividends but increases values.

The number of small but well-equipped modern hotels in Havana have doubled in the past two years, and this, of course, renders it easy for tourists to secure suitable accommodations. One of the finest and sorely needed buildings, completed and dedicated • this month, is the Havana Institute, occupying the entire block between Monserate and

Zulueta. This handsome structure is of Cuban limestone and a credit to the builders and to the city. The National City Bank of New York, too, is completing its million-dollar edifice on the site of the old Santa Catalina Convent. Its architecture is unique, imposing and handsome, giving the impression of solidity and security which is in keeping with the reputation of that institution.

It would seem that in the closing months of President Zayas' term of office, the Government is anxious to make up for lost time and to leave a lasting record of what can be accomplished in a short time if you begin to do things in earnest. All of the principal thoroughfares in the center of the city are being rapidly repaved with granite blocks, especially along the route of the Carnival Parade, which began on Sunday, February 22. Several new parks or sites that surround the statue of General Maceo, and other heroes of the War of Independence, are being rushed to completion, as is the Gulf Avenue Drive, injured by the storm several years ago. Work on the new public square that lies between the Palace and the Colon Market is being pushed rapidly. President Zayas is probably wise in having his statue, which will occupy the center of said square, placed in position while he is still alive to enjoy it. Republics are often forgetful, as is Cuba, of the debt she owes her first President, Don Tomas Estrada Palma, who died of a broken heart, and of Narciso Lopez, who, like Simon Bolivar, gave his life to the cause of Liberty.

Incidentally, the memorial services for the victims of the battleship Maine, celebrated on the site of the new monument, were a decided success, for which Mr. Wilford, manager of the *Havana Post*, deserves much credit. Some two thousand Americans and Cubans, residents and tourists, all actuated by a common motive, assembled Sunday, February 15, on the Gulf front and there listened to an exceptionally fine address delivered by Rafael Martinez Ibor of the State Department. The sentiments that came from his lips did more to emphasize and cement the ties between Cuba and the United States than anything uttered since the control of government was turned over to this Republic in 1902.

One incident, recalled as an historical fact, was at the lowering of the Stars and Stripes over the President's Palace when General Wood resigned as Military Governor. As the flag came to the foot of the staff a Cuban officer sprang forward and seized its folds in his arms, exclaiming, "That flag is sacred! It must never touch the ground. It has made our freedom possible and we revere it." Sr. Ibor declared that this sentiment of Cuba towards the United States, and confidence in the justice and generosity of the Washington Government, would always live in the hearts of true Cubans.

The National University

The formal opening of this year's sessions of the National University, Dr. Eliseo Cartaya, Rector of the University presiding, which took place on October 1, 1924, was attended by the Secretary of Public Instruction, the deans and members of the faculties of the different schools, and a large number of students. At the close of the ceremony a bust of Martí on a handsome marble pedestal, which was presented by Dr. González Manet, was unveiled in the main building.

Club Femenino to Open School

A business school for women, founded by the Club Femenino de Cuba, has been established at Aldama 72, and was formally opened with a reception. Mrs. Pilar Jorge de Tella, the president of the club, and other officials and members served as a reception committee.

This is one of the many commendable activities sponsored by the Club Femenino de Cuba in providing educational facilities for dependent women and girls.

Tropical Plant Research Foundation

OBJECTS

The Tropical Plant Research Foundation is an organization formed under the auspices of the National Research Council and incorporated on June 6, 1924, under the laws of the District of Columbia governing societies for scientific and similar purposes. It has no capital stock and is not conducted for financial profit but to advance knowledge.

The particular objects and business of this foundation are to promote research for the advancement of knowledge of the plants and crops of the tropics; to conduct investigations in plant pathology, entomology, plant breeding, botany and forestry, horticulture, and agronomy, and to publish the results thereof; and to establish and maintain such temporary or permanent stations and laboratories as may be necessary for the accomplishment of these objects under the restrictions and regulations established in its by-laws.

As a result of a conference of foresters and officers of the Pan American Union on October 29, 1924, the Tropical Plant Research Foundation has been commissioned to collect all available information relative to the forests of Latin America, as a preliminary step toward a Pan American Forestry Conference, and the outlining in a definite manner of problems of tropical forestry which might perhaps become subjects of research under the auspices of the Foundation.

HEADQUARTERS

The central office of the foundation is in Washington.

The laboratory headquarters in the United States will be at the Boyce Thompson Institute for Plant Research, Yonkers, N. Y., where the facilities for this type of work are unexcelled.

No permanent headquarters in the tropics are planned at present. The work will be done in the field or at temporary field laboratories located where the particular problem requires.

ORGANIZATION

The administration of the foundation is vested in a board of nine trustees, four of whom represent business interests, while five must be scientific men. The work of

the foundation is in charge of a scientific director and general manager selected by the trustees.

The foundation is intended to be an effective working agency which will provide for tropical plant industries a research service similar to that performed in the United States by the research bureaus of the Government and by the Crop Protection Institute.

It will work on a project basis. Each undertaking will be definitely organized around a particular problem or group of problems, such, for example, as the diseases and insects of sugar cane in Cuba. A scientific staff will be employed.

SCIENTIFIC CONNECTIONS

The establishment of the Tropical Plant Research Foundation is the outcome of the widespread interest in the tropics among the scientific men of the country, who now unite in an advisory relation to support the future work of the foundation.

The National Research Council is represented on the board of trustees by one member of its Division of Biology and Agriculture.

The American Phytopathological Society and the American Association of Economic Entomologists each has one of its members on the board of trustees and maintains an advisory committee whose assistance may be sought in selecting the most competent investigators for the foundation staff, or in other matters where the counsel of experienced leaders is needed.

FINANCIAL

The foundation will be supported by funds contributed by individuals or organizations interested in tropical plant products.

These funds will be received and held until needed by the treasurer of the National Research Council, which will cause to be made an annual audit of the accounts of the foundation.

INFORMATION SERVICE FOR TROPICAL WORKERS

The foundation will engage actively in conducting field research in the tropics.

It will also seek to promote scientific work by other agencies in the tropics and to lend its facilities to workers who need assistance.

It will assemble records of work already done in the tropics or bearing upon tropical problems, compile special indexes and bibliographies, gather a working collection of reference books and maps, but will not build up a large special library.

There will be established a personnel register of scientific men in the United States and other countries who have had experience in the tropics or who are for other reasons particularly equipped for tropical service.

It will gather information concerning the plant industries of the tropics and the plant production problems which they are facing.

It will become acquainted with all agencies engaged in work related to that of the foundation and keep in contact with the progress of their research. This information will be freely available to all interested workers.

The scientific staff is at present composed of the following members: Entomologist, Prof. D. L. Van Dine; assistant entomologist, Mr. C. F. Stahl; pathologist, Dr. James A. Faris; assistant pathologist, Mr. Marion N. Walker; chemist and soil biologist, Dr. R. V. Allison.

Other appointments to follow.

The advisory committees are the Division of Biology and Agriculture, National Research Council, the Advisory Board of the American Phytopathological Society, the Committee on Policy of the American Association of Economic Entomologists, and the Executive Committee of the Cuba Sugar Club.

SUGAR CANE PROJECT

The foundation is undertaking an investigation of sugar-cane production problems in Cuba, with the support of the Cuba Sugar Club, an organization of sugar mills and producers of cane. In this work, which is to extend through a period of five years, particular emphasis will be placed upon mosaic disease, root diseases, and insect pests, the breeding and testing for disease resistance of new cane varieties, and soil-fertility problems. One or more field stations are being established in Cuba for this project.

Other research projects dealing with

tropical crop industries are under consideration.

BOARD OF TRUSTEES

- Prof. L. R. JONES, *President*,
Head of the Department of Plant Pathology,
University of Wisconsin.
- Prof. ROBERT A. HARPER, *Vice President*,
Torrey Professor of Botany, Columbia University, New York; chairman Committee on Biology and Agriculture, National Research Council.
- Dr. WILLIAM CROCKER,
Director, Boyce Thompson Institute for Plant Research, Yonkers, N. Y.
- Prof. S. C. PRESCOTT,
Head of Department of Biological Chemistry,
Massachusetts Institute of Technology.
- Prof. D. L. VAN DINE,*
Specialist, Extension Entomology, Pennsylvania State College. Formerly Entomologist, Hawaii Experiment Station and Porto Rico Sugar Experiment Station.
- Mr. V. M. CUTTER,
President, United Fruit Co.; Boston, Mass.
- Mr. H. C. LAKIN,
President, The Cuba Co., New York.
- Maj. GEORGE P. AHERN, Washington, D. C.,
Retired. Formerly Director of Forestry,
Philippine Islands.
- Mr. J. T. CRAWLEY, Warrenton, Va.,
Retired. Formerly Director, Cuban Experiment Station and Porto Rico Sugar Station.

EXECUTIVE COMMITTEE

- Dr. R. A. HARPER,
Dr. WILLIAM CROCKER,
Mr. H. C. LAKIN.

SCIENTIFIC DIRECTOR AND GENERAL MANAGER
WILLIAM A. ORTON, Sc. D.

Ex-Pathologist in charge, Office of Cotton, Truck, and Forage Crop Disease Investigations, Bureau of Plant Industry, United States Department of Agriculture.

*Prof. Van Dine has since resigned as trustee to join the scientific staff.

—*Pan American Union.*

Earle Makes New Connection

Prof. F. S. Earle, who has been engaged in special agricultural work for the General Sugar Company for the past year or more, has resigned his position in order to accept a connection with the Tropical Plant Research Foundation. Prof. Earle is to act as sugar cane technologist to the Foundation and will have charge of variety tests which will be conducted on his home farm at Herradura, Cuba. Cane grown there will be sent to different parts of the island for tests under various soil conditions. Work in bud selection and the propagation of seedlings will also be carried on.

The American Sugar Refining Co.

Statement to Stockholders

December 31, 1924.

To the Stockholders:

Supplementing the Annual Reports, it seems an appropriate time to give the stockholders a comparative statement of the financial, operating and merchandizing activities of the Company for the last two consecutive ten-year periods.

INCOME ACCOUNTS

We set up below a contrast of the Income Accounts of the Company for each ten-year period:

	Period 1905-1914	Period 1915-1924
CREDITS:		
Operations.....	\$50,295,445.42	\$50,720,918.98
Interest.....	6,055,036.96	7,534,183.35
Investment Income.....	20,499,825.76	35,188,658.35
Profit from Sales of Investments.....	4,660,317.17	11,687,529.73
Cunagua (A) Depreciation Reserve.....	—	4,029,365.83
(B) Surplus Undistributed.....	—	1,098,087.00
	<u>\$81,510,625.31</u>	<u>\$110,258,743.24</u>
DEBITS:		
Charges to Reserves and Surplus, a/c extraordinary losses and adjustments.....	\$24,630,553.22	\$22,911,757.58
Depreciation Plants and Equipment, including Cunagua.....	11,579,793.56	16,819,670.54
Bond interest.....	—	5,400,000.00
Dividends.....	62,999,455.75	55,349,773.75
	<u>\$99,209,802.53</u>	<u>\$100,481,201.87</u>
Surplus increase or decrease.....	<u>\$17,699,177.22</u> Decrease	<u>\$9,777,541.37</u> Increase

COMMENTS:

(A) Reserve and Surplus Accounts have increased \$9,777,541.37 against a decrease of \$17,699,177.22 in the previous ten-year period; (B) Total income increased about \$29,000,000 and averaged \$11,000,000 annually as against \$8,150,000; (C) Each item of income shows a gain.

DOMESTIC BALANCE SHEETS

In the annual report for the Stockholders Meeting, March 11, 1925, the Balance Sheet of the year may differ somewhat from the one now set up, which is before final adjustments and audit.

ASSETS:	Dec. 31, 1914	Dec. 31, 1924
Real estate and plants.....	\$48,704,895.92	\$62,195,977.11
Merchandise and supplies.....	15,203,241.30	8,777,225.33
Prepaid and deferred.....	254,864.81	3,144,801.48
Accounts receivable.....	4,350,167.61	4,672,527.64
Accrued income.....	480,123.55	161,822.89
Loans.....	5,137,275.00	21,248,097.87
Investments—General.....	29,768,070.13	25,981,420.98
Cash.....	19,110,779.16	31,221,407.40
Receivables, a/c 1920.....	—	5,030,260.41
	<u>\$123,009,417.48</u>	<u>\$162,433,541.11</u>

LIABILITIES:	Dec. 31, 1914	Dec. 31, 1924
Accounts, taxes, interest payable.....	\$3,894,895.45	\$5,422,968.96
Dividends payable.....	1,594,926.00	811,521.75
Bonds due 1937.....	—	30,000,000.00
Capital stock.....	90,000,000.00	90,000,000.00
Surplus and reserves.....	27,519,596.03	36,199,050.40
	<u>\$123,009,417.48</u>	<u>\$162,433,541.11</u>

COMMENTS:

(A) On December 31, 1914, the Company owned stocks in Beet Sugar Companies of a book value of \$10,293,460.21. In the ten years sales have been made at a profit of \$14,395,521.71, and we still own beet stocks of a book value of \$5,896,955.36. (B) As shown by Income Account the Company has charged off all determined losses amounting to \$22,911,757.58 incurred through repudiation, bankruptcy, loans and inventory of the war de-control period. The undelivered sales on the books of the Company, on a conservative volume of business, amounted to more than \$60,000,000 when the collapse of 1920 occurred. About 2,500 customers endeavored to avoid their contracts. There still remains as Receivables the amount of \$5,030,260.41, all being pressed for collection.

INCOME FOR LAST TEN-YEAR PERIOD SUFFICIENT FOR ALL DIVIDENDS

It will be noted that the Company has had net income sufficient to meet all charges, losses, depreciation, preferred dividends and to have maintained the ordinary 7 per cent common dividend for the entire last ten-year period. It will be recalled that a total of \$7.50 was paid in 1918-20 in extra dividends on the common stock.

The Management since government de-control December 31, 1919, has kept continually before the stockholders the uncertainties as to operating earnings. By the middle of 1921 the financial commitments of the Company and the unsatisfactory outlook of the refining industry called for a conservative dividend policy. At the time, the refinery rehabilitation program was under way, the Baltimore refinery and Central Jaronu were under construction, nearly \$25,000,000 was still required to carry our customers under their 1920 contracts, the contracts themselves were being disputed, inventory losses were still to be taken as an incident of the unstable conditions. In view of these conditions and the uncertain outlook all dividends were omitted for July, 1921, on the common stock.

\$45,000,000 SPENT ON DOMESTIC OPERATING PROPERTIES IN LAST TEN YEARS

The active refineries 10 years ago were at Boston, Jersey City, Brooklyn, Philadelphia and Chalmette (New Orleans)—with the two reserve refineries, at Philadelphia and New Orleans. In Chalmette, the Company had a new refinery whose efficiency had not been fully developed by reason of nearly 200 Planters' Suits asking triple damages under the Sherman Law amounting to nearly \$200,000,000 and leading to several Ouster Suits by the State of Louisiana and to special legislation directed against the Company. This controversy resulted in closing the Chalmette refinery for prolonged periods. Furthermore, the Company was under a Dissolution Suit filed by the Federal Government.

Efficient refineries are vital. Ten years ago when the present management assumed responsibility, it was believed that the Company could refine as cheaply as competitors. In 1916 it developed, largely through competition for export, that the Company had only two refineries—Chalmette and Philadelphia—that could meet competitors. Your management, therefore, faced unexpectedly a vast rehabilitation program.

The rehabilitation program has been carried on vigorously and without interrupting operations. Aside from the Brooklyn refinery, which is about to be superseded, the refining efficiency of the Company has been brought to its highest point. The larger steps taken have included the following; 1. The settlement of the Louisiana litigation. 2. The settlement of the Federal Dissolution Suit. 3. Sale of the equipment and

property of the reserve refineries at New Orleans and Philadelphia. 4. Closing and sale of equipment of the refinery at Jersey City. 5. Enlargement of the refinery at Boston. 6. Building of a new refinery at Baltimore. 7. Extensive changes and improvements in all refineries.

In this rehabilitation program, in maintenance, repairs, additions and improvements, including the building of the Baltimore refinery, and in ships, tank cars, molasses equipment and timber lands, the Company has expended the sum of \$45,000,000. This is entirely aside from the investment in Cuba.

CUBAN RAW SUGAR PROPERTIES PROFITABLE AND BENEFICIAL TO THE COMPANY

About 40% of the raw sugar refined in the United States is owned or controlled by our competitors. For example, The United Fruit Company owns properties in Cuba, Planters own a very large refinery near San Francisco which substantially takes care producing the entire requirements of its Revere Refinery at Boston. The Hawaiian of the Hawaiian crop. In varying degrees your Company meets similar competition in New York, Philadelphia, New Orleans and Texas.

To meet these changing competitive conditions, your Management in 1919 purchased Central Cunagua and subsequently developed as a pioneer enterprise Central Jaronu, the two plantations constituting one body of virgin land of about 500 square miles, capable of producing 1,200,000 to 1,400,000 bags of raw sugar, equal to about 12% of the average raw sugar requirements of your Company.

This step has been profitable and of great assistance to the Company in its merchandising. The income of Central Cunagua appears in the Income Accounts of your Company above. The balance sheet, as of the end of its fiscal year, is printed below.

ASSETS:

Lands, Railroad, buildings & equipment, less depreciation	\$32,097,055.50
Cash on hand and in banks	227,517.02
Loans to Cuba Northern Rys. Co.	505,249.67
Advances to Colonos	2,257,597.39
Accounts and Notes Receivable	487,300.76
Inventory—sugar, molasses and supplies	4,579,043.72
Mortgages	55,000.00
Deferred assets and items in suspense	40,953.14
	<u>\$40,249,717.20</u>

LIABILITIES:

Preferred stock	\$7,500,000.00
Common stock	7,500,000.00
Mortgage Indebtedness	1,221,000.00
Sundry accounts payable	1,104,551.45
The American Sugar Refining Company	19,714,758.28
Reserves and surplus	3,209,407.47
	<u>\$40,249,717.20</u>

ADVERTISED PACKAGES FINE FORM OF COMPETITION MAKES PUBLIC FINAL ARBITER

Formerly, as is well known, the household sugar was largely of bulk packing. We have developed the sale of package sugar and table syrup under the trade names "DOMINO" and "FRANKLIN" with such success that the volume of Trade Mark packages now constitutes roundly one-half of our production that goes into the households.

This package development necessitated very large changes both in equipment and in refineries. The advantage of this business is its direct contact with the consumer. It gives the consumer a free choice.

SETTLEMENT OF FEDERAL DISSOLUTION SUIT

The Dissolution Suit filed by the United States Government in 1910 against the Company and against all the Companies in which it had any interest had, by the end of

1914, proceeded to the point of making a complete record of about 22 volumes of testimony, and was ready for hearing.

On December 20, 1922, the suit was disposed of by a final decree entered by the Government, with consent of the Company, dismissing the petition as to all parties excepting the National Sugar Refining Company, the Great Western Sugar Company, and the Michigan Sugar Company, in each of which your Company owned a minority interest. As to these companies, the decree enjoins your Company from securing any greater interest than it then had or from taking any part in their affairs. The Government further publicly approved the administrative conduct of the Company's affairs.

Since the entrance of this decree, your Company has sold all of its holdings in the Great Western Sugar Company.

STRONG FINANCIAL AND OPERATING POSITION ASSURES DIVIDEND ON COMMON WHENEVER EARNINGS WARRANT

In the last ten years the Company has refined about 12,000,000 tons of raw sugar. Its sales of refined products have amounted to over two billion dollars (\$2,100,000,000), at a profit of $2\frac{1}{2}\%$ on sales or less than $\frac{1}{5}$ of a cent on each pound of sugar handled. This is a sustained public service on as small, if not a smaller, margin of profit as that prevailing in any industrial field.

In the 10 years it has become the largest trade-mark package merchandiser in the country, has rescued the efficiency of its refining properties, has built the highly successful Baltimore refinery, has acquired one and developed another low cost Cuban plantation, has added about \$10,000,000 to surplus.

The passing of the common dividends, when examined in the light of the events of subsequent years, finds ample confirmation of the wisdom of the judgment then taken. By reason of its return from investments the Company has been able to work through four years of inadequate refining earnings to an increasingly strong financial position without modifying either its construction or rehabilitation program. At the close of 1924 it is a strong liquid asset position with over \$31,000,000 in cash and no borrowings.

During much of the 10-year period the Company has been operating under unprecedented conditions. Today we seemingly are approaching more stable conditions with a level of prices involving less risk and more consistent with production costs. This means, if some unexpected change or interference does not occur, that sugar refiners again will have an opportunity to operate on a profitable basis. The Company is in financial position to resume a common dividend whenever conditions warrant.

By order of the Board of Directors

EARL D. BABST

President

Cuban Dominican Sugar

The Cuban Dominican Sugar Company, in its report for the fiscal year ended September 30 last, showed net profits of \$2,271,743, after interest, depreciation, etc., equivalent, after allowing for preferred dividend requirements, to \$1.56 a share earned on 1,035,522 shares of no par common stock. This compared with \$1,409,905, or 72 cents a share, earned in the preceding year.

Germany's Sugar Crop

With the beet slicing campaign drawing toward its close it seems probable that the production of sugar in Germany will be 1,575,000 to 1,600,000 metric tons. While the tonnage of roots will not greatly exceed the estimate of 9,727,800 tons made by the factories in October, the sucrose content has averaged higher than was then expected by from 0.4 to one per cent, though there are a few factories where the average has been lower than last year.

Cuban Commercial Matters

The Cuban Chemical Market

THE UNITED STATES STANDS FIRST IN THE IMPORT TRADE OF CHEMICAL AND ALLIED PRODUCTS INTO CUBA

Lloyd A. Nolan, Chemical Division

Cuba's return to prosperity during the year 1922-23 was almost as rapid and remarkable as its crisis in 1920, followed by two years economic depression throughout the island. This improvement in economic conditions is reflected in the tremendous increase in value of chemical and allied products exported from the United States to Cuba, amounting to \$5,538,856 in 1922 and to \$10,058,864 in 1923, or an increase of almost 100 per cent., according to data in Commerce and Navigation of the United States.

COUNTRIES SUPPLYING CHEMICALS TO CUBA

Cuban statistics place the value of imports of chemical and allied products in 1923 at \$13,415,606, compared with \$7,396,024 in 1922. The United States, France, Germany, and Great Britain supplied the bulk. The United States' share of the trade rose from 65 per cent in 1922 to 69 per cent in 1923, at the expense of France, whose participation showed a decrease from 20 per cent in 1922 to 15 per cent in 1923. Germany increased its contribution slightly, supplying 3 per cent of the total in 1922 and 4 per cent in 1923. England's share of the Cuban trade showed a decrease from 4 per cent in 1922 to 3 per cent in 1923.

COMMERCIAL FERTILIZERS SHOW LARGE GAINS

The year 1923 was an extremely successful one for the sale of fertilizer in Cuba. According to American statistics, shipments of fertilizers and fertilizer materials from the United States to Cuba increased almost 500 per cent in 1923 over 1922—99,199 tons, worth \$2,930,642, compared with 20,205 tons, valued at \$372,589, in 1922. Exports of sulphate of ammonia were largely responsible for this huge increase, showing a rise from 2,292 tons in

1922 to 19,094 in 1923, with respective values of \$158,932 and \$1,106,868. The significant feature in the fertilizer trade of Cuba during the past two or three years has been the increased utilization of commercial fertilizers for sugar-cane growing. Tobacco is the next largest absorbent of fertilizers. Vegetable and fruit crops also consume a fair amount, especially in the western zones, where winter truck crops are grown for export, and fruit plantings have been developed for the same reason.

The remaining items in the fertilizer chemical group, including prepared fertilizer mixtures, other fertilizers, superphosphates, nitrogenous materials, and land-pebble phosphate, showed very favorable increases for 1923 in comparison with 1922. Exports of prepared fertilizer mixtures from the United States to Cuba rose from 2,574 tons, valued at \$103,726, in 1922 to 9,221 tons, worth \$448,362, in 1923. Shipments of other nitrogenous materials registered the astonishing increase from 351 tons in 1922 to 5,393 in 1923. Superphosphate exports in 1923 were valued at \$314,276, compared with the small figure of \$58,005 for 1922.

CUBA A GREAT CONSUMER OF PREPARED MEDICINES

Cuba is the best customer of American prepared medicines in Latin America. Among the nations of the world, England alone outranks Cuba as the largest consumer of this class of American products. The value of exports of medicinal and pharmaceutical preparations from the United States to Cuba in 1922 amounted to \$1,468,583 and in 1923 reached \$2,167,816, an increase of about 50 per cent.

The serious competitor of the United States in the Cuban market for pharmaceutical products is France, which supplied 39 per cent in quantity and 47 per cent in value of the importations of these products in 1922. The figures for 1923 are not available at this time.

Although Cuba imports the greater part of the prepared medicines it consumes, nevertheless an important industry in the manufacture of these products has been

developed. No statistics are available to show the volume of this business. Authorities, however, estimate that this production does not exceed 10 per cent of the total consumption.

The United States quota of this trade has been increasing during the last two years, attributable chiefly to intelligent advertising and the intensive cooperation of resident agents. The proximity of the market and the fact that the people are familiar with American products have helped in building up the American trade.

GOOD DEMAND FOR PERFUMERY AND TOILET PREPARATIONS

The use of first aids to beauty, such as powders, rouges, creams, and perfumes, is practically universal with the Cuban women. The men also are addicted to the use of toilet preparations. There is an excellent market for toilet accessories of this character. In the case of perfumery and cosmetics Cuba obtains about one-half of its supplies from the United States, but the French preparations exceed the American in aggregate value, as the French perfumes are relatively more expensive. The bulk of the sales in toilet requisites consists of face powder.

During 1922 the value of United States exports of perfumery and toilet preparations to Cuba reached \$361,579 and in 1923 amounted to \$495,511, or an increase of about 35 per cent. The items of this group, in the order of their importance, are dentifrices, talcum and toilet powders, creams, rouges and cosmetics, toilet preparations, perfumery, and toilet waters. The exports of dentifrices from the United States to Cuba increased considerably, from \$113,216 in 1922 to \$172,655 in 1923, while talcum and toilet powders showed a rise from \$102,341 during 1922 to \$124,910 for 1923. During 1923 the American exports of creams, rouges, cosmetics, and perfumery to Cuba showed increases in contrast to the previous year.

AMERICAN PAINTS PREFERRED—PIGMENTS

The most popular paints in Cuba are of English and American manufacture, the American paints being more extensively used, since they are generally cheaper in price and obtainable with less delay.

Exports of paints, pigments, and varnishes from the United States to Cuba rose in value from \$1,002,224 in 1922 to \$1,780,488 for 1923, of which ready-mixed paints accounted for 633,007 gallons, valued at \$1,147,121 in 1923, an increase from 296,407 gallons, worth \$553,774, in 1922. Other prepared paints ranked second, the American exports reaching 1,705,739 pounds, worth \$262,243, in 1923, contrasted with 1,180,547 pounds, valued at \$189,807, in 1922. The American exportation of mineral-earth pigments to Cuba in 1923, amounting to 1,480,677 pounds, worth \$93,201, was slightly greater than the previous year's total of 1,325,067 pounds, valued at \$82,912.

NAVAL STORES IMPORTED BY CUBA

In line with the growing prosperity in Cuba the exports of naval stores from the United States rose from a total value of \$241,792 in 1922 to \$325,178 in 1923. Rosin, used in the manufacture of the cheaper varieties of soap, was received from the United States to the amount of \$135,467 in 1922 and \$155,779 in 1923. American exports of spirits of turpentine to Cuba showed a slight increase from \$53,680 in 1922 to \$54,849 for 1923, while shipments of wood turpentine remained about the same for 1922 and 1923, approximately \$14,000. Turpentine substitutes exported from the United States to Cuba in 1923 reached \$32,660. No shipments were made in 1922. American tar and pitch exports to Cuba in 1922 amounted to \$9,749, and in 1923 totaled \$10,466. The participation of the United States in the Cuban gum and rosin trade increased considerably, from \$28,260 in 1922 to \$57,962 during 1923.

IMPORTANT INCREASES IN MOST INDUSTRIAL CHEMICAL ITEMS

The total receipts of industrial chemicals into Cuba from the United States amounted to \$1,315,422 in 1923, compared with \$1,263,864 in 1922. This slight expansion, however, does not reflect the general trade in industrial chemicals, as the majority of these items recorded considerable increases. Imports of soda ash rose from 2,777,087 pounds, valued at \$66,370, in 1922, to 6,778,556 pounds, worth \$160,331, in 1923. •

Baking-powder imports recorded an increase from \$41,701 in 1922 to \$54,907 during 1923. Sal soda, ammonia and ammonium compounds, formalin, sodium cyanide, borax, washing powder, boric acid, dextrine, potash compounds, sodium bicarbonate, and other sodium compounds also registered gains. The sugar industry, upon which Cuba is largely dependent for its prosperity, consumes considerable amounts of industrial chemicals.

Shipments of calcium carbide from the United States showed a heavy falling off, from \$254,219 in 1922 to \$145,937 in 1923. American exports of caustic soda declined from \$323,823 in 1922 to \$317,969 for 1923. Bleaching-powder shipments dropped from \$31,824 to \$24,755. Glycerin, sodium silicate, aluminum sulphate, and copper sulphate were other items in which decreases were recorded.

CUBAN MARKET FOR DYESTUFFS AND COAL-TAR PRODUCTS

The principal Cuban dyestuff demand is for package dyes and dye soaps used in the home, the annual requirement reaching approximately \$100,000. Commercially the important demand for dyes is from cleaning and dyeing establishments, the largest single enterprise, consuming annually about \$10,000 worth. Competition in the Cuban dyestuffs market is limited to American and German manufacturers, the American predominating.

Coal-tar products imported into Cuba from the United States registered an encouraging increase of approximately \$35,000, amounting to \$105,271 in 1922 and \$140,147 in 1923. Imports of crude distillates increased from 18 tons, worth \$2,483, in 1922 to 617 tons, with a value of \$72,373, in 1923. The next important item in the coal-tar group was coal-tar colors, dyes, and stains, which rose from 46,960 pounds in 1922 to 63,832 in 1923, and increased in value from \$28,363 to \$38,365. In line with the growing trade in coal-tar products, the shipments of crude tar nearly doubled in quantity, from 853 barrels in 1922 to 1,647 in 1923. In the statistical classification of United States exports, however, "coal-tar products not otherwise mentioned" showed a

decline from 984,063 pounds in 1922 to 868,690 in 1923. Other items which registered increases were benzol, carbolic acid, aniline oils, and naphthalene.

INDUSTRIAL ALCOHOL OF GROWING IMPORTANCE

The production of industrial alcohol, both pure and as fuel, is becoming a very important Cuban industrial activity. During 1921, of a total of 36,557,187 liters (3.1758 liters = 1 gallon), 33,918,001 were manufactured in distilleries and the remainder at sugar mills. In 1922 the production of alcohol increased to about 50,000,000 liters, of which approximately 18,000,000 were converted into motor spirit. The alcohol industry comprises 37 distilleries, representing a capital investment of more than \$25,000,000, largely Cuban.

Since the beginning of 1923 the price of molasses has been increasing, while exports of this product have been much greater than usual. Some of the products of this industry are alcohol, pure and denatured, rum, and motor spirit.

CUBAN CHEMICAL EXPORTS LIMITED TO THREE PRODUCTS

The only chemical products shipped from Cuba to the United States are perfumery, pharmaceutical products, and natural fertilizer. Exports of pharmaceuticals rose from \$6,224 in 1922 to \$45,293 for 1923. Perfumery shipments to the United States reached a value of \$8,964 in 1923, compared with \$2,667 in 1922.

CUBAN MARKET A FIELD FOR INTENSIVE EXPLOITATION

The proximity of the market and the reciprocal tariff treaty with the United States are factors that have made Cuba one of the most important American export markets. It already ranks high as a foreign consumer of American chemical and allied products and presents a fertile field for increased sales. A demand can be cultivated for many commodities by intensive exploitation of the market, with appropriate distribution methods.—*Commerce Reports*.

Automotive Trade

Fundamental conditions in Cuba are believed favorable to increased automotive sales, if artificial obstacles in the nature of strikes and other disturbances do not interfere. During the last quarter of the year business compared favorably with preceding quarters, despite the fact that industrial strikes and unusually heavy rainfalls cut sales in half during November. Larger sales during the first quarter of 1925 are confidently anticipated because of more money being put in circulation by plantation and sugar-mill owners. The prevailing air is one of confidence. Trade in trucks has recently been slow, but improvement is expected. The same general situation exists in the accessories market. (Assistant Trade Commissioner O. R. Strackbein, Habana.)

United States Supplies Large Percentage of Cuba's Flour

Cuba, with an area equal to that of Pennsylvania, and a population of about 3,000,000, purchases about 1,350,000 barrels of flour yearly. Since 1922 the imports each year have averaged 1,325,000 barrels, of which nearly 1,100,000 are shipped from the United States and 225,000 from Canada. Since January, 1922, the port of New Orleans has supplied 39.8 per cent of the United States exports of flour to Cuba, New York has furnished 33.3 per cent, and Mobile 19.4 per cent. The per capita consumption of flour in Cuba is about 90 pounds.

The general duty on the imports of flour into Cuba is \$1.30 per 100 kilos. By special treaty the United States enjoys a preference of 30 per cent, making a tariff of 91 cents per 100 kilos for flour from this country.

Cuba's Imports of Railway Material

According to the Bureau of Foreign and Domestic Commerce, Cuba was the largest importer of railway material manufactured in the United States during the month of December, 1924. During that month Cuba imported 2,280 tons of car wheels.

Clothing Trade with Cuba

A substantial increase is reported in the clothing business with Cuba. Houses do-

ing business with Cuba expect a much larger volume of business this year than last year. These expectations are based on conditions of the country. The sugar situation in Cuba is said to be good and it is this, more than anything else, that governs the clothing business of the country.

Because of climatic conditions in Cuba, the bulk of the clothing sold is of lightweight material.

Cuban Demand Good for Construction Iron and Steel

The phenomenal building activity in progress in Habana at the beginning of 1924 continued unabated at the close of the year. The construction of homes, apartment houses, and office buildings was most noticeable. Requirements of structural steel for the office buildings have been on a high level; prices, however, have been unsatisfactory.—*Trade Commissioner C. A. Livengood, Habana.*

Foreign Trade

Imports and exports in general, including coins, amounted to \$679,504,945 during the year 1923-1924. Of this amount \$271,913,311 represents imports and \$407,591,634 exports, showing an increase of \$43,530,531 in imports and a decrease of \$24,454,748 in exports, against the imports and exports during 1922-1923, which were \$228,382,780 and \$432,046,382 respectively. (President's message, October 31, 1924.)

Need of More Laborers Felt

Serious attention is being given by Secretary of Agriculture Betancourt to the question of Antillian immigration and a conference held on the subject was attended by a majority of the cabinet officers and by other officials interested. The necessity for cane cutters from Haiti and Jamaica is very keenly felt in Camaguey and Oriente, where the supply of native labor is extremely low. General Betancourt proposed that the countries mentioned above be approached through the proper diplomatic channels with a suggestion that this flow of labor be properly regulated and at the same time facilitated. Planters in the eastern provinces are earnestly wishing for the success of the negotiations.

The Control of Sugar Cane Mosaic

By MELVILLE T. COOK

Plant Pathologist, Insular Experiment Station, Porto Rico

Many agricultural crops have been attacked from time to time by plant diseases which were so destructive as to cause great alarm and very heavy losses among the growers. No one of these diseases has been more alarming than the "mosaic disease" of sugar cane. No one knows just where this disease originated but the first authentic record we have is from Java (1890), although it was not at that time looked upon as a disease in the ordinary sense of the term. It spread rapidly and is now known to most of the large sugar producing centers of the world. Although recognized as the cause of heavy losses in some parts of the sugar producing world, there are some countries in which its destructive character is not fully appreciated.

PORTO RICAN RESEARCH WORK

I believe that I am right in saying that Porto Rico was the first country in the Western hemisphere to appreciate the great importance of this disease. This was due largely to the work of Dr. John A. Stevenson, who was plant pathologist at the Insular Experiment Station from 1913 to 1918. In 1919 he published a very complete report* on the disease as known at that time. He was succeeded by Mr. Julius Matz, who also contributed to our knowledge of the subject. The disease had attained such proportions that Professor F. S. Earle was employed as special agent of the United States Department of Agriculture from 1918-19 to make a study of the disease. After one year he was employed as expert on cane diseases by the Insular Experiment Station and we are indebted to his efforts for much of our knowledge concerning the control of the disease. He was succeeded in 1922 by Mr. C. E. Chardon, now Commissioner of Agriculture for Porto Rico, who also added much to our knowledge of the subject, especially that phase which had to do with the transmission of the disease from diseased to healthy plants. In this work he

was very ably assisted by Mr. R. A. Veve of the Fajardo Sugar Company.

The Porto Rican growers now practice two well-recognized methods for combating the mosaic disease of sugar cane and it is not likely that we shall make any further advance of importance until our research workers give us more definite information as to the cause and character of the disease. The two methods of control may be designated as (1) seed selection and roguing; (2) the growing of resistant or immune cane varieties.

SEED SELECTION AND ROGUING

This method consists in the selection of healthy seed for planting. The selection must be made before the leaves are removed and by persons who are thoroughly competent to do the work. Selections made after the removal of the leaves are worthless, since it is impossible to recognize the disease in canes without the leaves, except in advanced stages. This should be followed by weekly field inspections and roguing when the third leaf has unrolled, continuing until the cane closes. This work must be done by a very careful observer and every stool must be inspected. All diseased stools should be removed as soon as they are detected, as every diseased stool is a source of infection for neighboring stools. In case of heavily infected plantations, where it is difficult to secure anything more than a small amount of seed, it is advisable to plant a seed plot somewhat remote from the main plantations on which healthy seed may be grown for the commercial plantings.

It is now very generally known that the disease attacks certain grasses and that it is carried by the corn louse (*Aphis maidis*) from diseased to healthy plants. It is also well known that new infections are most abundant after weeding, which forces the insects from their chosen plants, which are so frequently infected, to the healthy canes. Therefore, it is necessary to practice clean cultivation so as to prevent the introduction of the disease from other host plants. In this connection it should be remembered that the corn louse

*Stevenson, John A.—The Mottling or Yellow Stripe Disease of Sugar Cane. *Journal of the Department of Agriculture of Porto Rico*, 6: 3: 76 (July, 1919).

is not in any sense the cause of the disease, but serves as its carrier from diseased to healthy plants. This louse is of no great importance as a cane pest unless it had fed on a plant infected with the disease.

It has been demonstrated that this method is successful if properly practiced and that the expense is not prohibitive. It is to be recommended where it is desirable to grow a cane which is somewhat susceptible to the disease, but it cannot be recommended for the highly susceptible varieties.

IMMUNE AND RESISTANT VARIETIES

It is very generally recognized that some varieties are much more resistant than others; that the Japanese or Uba cane is supposed to be immune; and that the Java varieties are especially susceptible to the disease, although it does not appear to cause a material reduction of yield in them. Therefore, the easiest method of controlling the disease is to grow the immune or extremely resistant varieties. The objections to this practice are that these varieties generally possess characters to which the growers and mill men object. The Uba gives a very high tonnage but is low in sucrose; the canes are small and very fibrous. Therefore, the mill men dislike to grind it, but the severity of the mosaic's

effects on many of our favorite varieties has forced them to do so in numerous instances.

Although the sugar cane mosaic has been the cause of heavy losses, it has not been entirely bad because it has led to studies which have demonstrated the possibilities of improvement in many lines. There has never been a time in the history of the sugar industry when so much work was being carried on for the improvement of sugar cane as at present. One of the most important features of this work is the selection and breeding of new varieties in hopes of finding some which will give higher yields and be more resistant to the many diseases and other pests that attack them than our old favorites. Of course, work of this kind is slow: (1) because it requires skill and perception to secure new varieties; (2) because such varieties must be carried to the point where their value can be determined, which requires time; and (3) because only a very small percentage will prove to be better than the existing varieties. Another equally important feature of the work consists in determining resistance or susceptibility of the newly developed varieties, not only to mosaic but to other diseases.—*Facts About Sugar.*



Hauling Sugar Cane

Traffic Receipts of Cuban Railroads

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending January 24.....	£134,980	£126,712
Week ending January 31.....	144,110	133,345
Week ending February 7.....	141,736	119,887
Week ending February 14.....	148,469	135,436
Week ending February 21.....	150,811	139,800

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending January 24.....	£16,106	£14,903
Week ending January 31.....	15,714	14,451
Week ending February 7.....	16,930	15,380
Week ending February 14.....	16,130	15,687
Week ending February 21.....	15,960	15,926

Havana Electric Railway, Light & Power Company

	MONTH OF DECEMBER		12 MONTHS TO DECEMBER 31	
	1924	1923	1924	1923
Operating revenues.....	\$1,313,550	\$1,212,415	\$14,357,901	\$13,458,065
Operating expenses and taxes.....	676,290	717,467	7,433,585	6,570,748
Net revenues.....	637,260	494,948	6,924,316	6,887,317
Other income.....	32,002	27,891	339,686	283,993
Total income.....	669,262	522,839	7,264,002	7,171,310
Interest charges.....	89,869	92,137	1,088,950	1,117,219
INCOME, after deducting taxes and interest charges.....	579,393	430,702	6,175,052	6,054,091
Sinking fund requirements.....	27,340	26,076	318,670	304,120
Balance of income.....	552,053	404,626	5,856,382	5,749,971

The Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	92	94
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	98	98½
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	95	....
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	86¼	86½
Havana City 1st Mtge. 6% Bonds.....	95	....
Havana City 2nd Mtge. 6% Bonds.....	90	....
Cuba Railroad Preferred Stock.....	87	89½
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	87¼	87½
Cuba Company 6% Debenture Bonds.....	90	....
Cuba Company 7% Cumulative Preferred Stock.....	90	95
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	93	93¼
Havana Electric Ry. Light & Power Co. Pfd. Stock.....	102	103
Havana Electric Ry. Light & Power Co. Com. Stock.....	90	92
Cuban American Sugar Co. Preferred Stock.....	98¼	100
Cuban American Sugar Co. Common Stock.....	31½	32
Guantanamo Sugar Co. Stock.....	5½	6

Sugar Production of Puerto Rico

Crops of 1918-19, 1919-20, 1920-21, 1921-22, 1922-23 and 1923-24 and estimate of the 1924-25 crop. (Tons of 2000 lbs.)

CENTRALS	LOCATION	Production of 1918-19	Production of 1919-20	Production of 1920-21	Production of 1921-22	Production of 1922-23	Production of 1923-24	Estimate for 1924-25	OWNERS	NATIONALITY
<i>Northern District:</i>										
1—LOS CAROS	Arecibo	4,375	5,429	5,868	3,875	5,625	5,942	7,500	Eduardo Giorgetti & Co.	American
2—CAMBALACHE	Arecibo	11,020	16,928	19,966	16,084	17,844	18,000	22,500	Central Cambalache	Spanish and American
3—PLAZUELA	Barceloneta	11,719	17,242	16,925	15,757	17,199	15,922	17,500	Piazuela Sugar Co.	American
4—MONSERATE	Nanati	5,276	8,928	7,188	7,844	6,500	8,811	10,000	Sucesión de Federico Calaf	American
5—SAN VICENTE	Vega Baja	10,338	11,917	13,913	13,060	11,156	12,465	13,750	Robert Hnos.	Spanish
6—CARMEN	Vega Alta	8,400	12,500	11,875	10,152	8,590	9,921	10,000	Carmen Central, Inc.	English and American
7—CONSTANCIA	Toa Baja	6,912	8,034	8,553	7,079	7,749	10,467	12,500	Compañía Azucarera del Toa	Spanish and American
8—JUANITA	Bayamón	7,095	9,290	8,652	7,117	5,401	7,790	9,000	Central Juanita, Inc.	American
9—VANNINA	Rio Piedras	11,727	12,921	12,017	9,161	5,938	7,284	8,750	Central Vannina, Inc.	Spanish, American and French
10—VICTORIA	Carolina	5,485	7,805	7,806	7,033	3,513	5,207	7,500	Central Victoria, Inc.	Spanish, French and German
11—CANOVANAS	Loiza	15,184	16,875	18,451	15,425	10,702	17,190	21,200	Loiza Sugar Co.	Spanish and American
(*)		2,680	4,916	5,357	4,681					
	TOTAL	100,241	135,785	136,604	117,268	100,217	118,999	140,200		
<i>Southern District:</i>										
1—GUÁNICA	Guánica	65,685	60,097	68,577	51,059	46,942	62,059	69,500	South Porto Rico Sugar Co.	American
2—SAN FRANCISCO	Guayama	2,740	3,503	3,100	2,200	2,000	3,181	3,000	Liuberas Hermanos	American
3—RUFINA	Guayama	6,438	8,020	8,791	6,886	9,864	12,646	13,000	Mario Mercado e Hijos	American
4—MERCEDITA	Ponce	9,593	10,832	13,912	11,001	10,000	10,807	12,500	Sucre de J. Serrallés	American
5—CONSTANCIA	Ponce	1,239	2,495	3,060	2,017	2,275	3,074	3,000	Corp. Azucarera Sauri y Subirá	Spanish and American
6—BOCA CHICA	Juana Diaz	5,638	6,544	4,523	3,493	5,000	6,161	8,750	Central Boca Chica, Inc.	American
7—CORTADA	Santa Isabel	8,874	11,072	11,922	11,013	8,729	8,373	10,000	Santa Isabel Sugar Co.	American
8—AGUIRRE	Salinas	44,632	50,482	49,660	39,916	34,965	34,965	44,000	Central Aguirre Sugar Co.	American
9—MACHETE	Guayama	9,815	12,150	11,137	12,311	11,286	11,047	12,500	Central Machete Co.	American
10—LAFAYETTE	Arroyo	13,093	15,334	15,458	12,912	14,359	14,881	15,300	Sucre, C. y J. Fantauzzi	French
	TOTAL	167,777	180,529	190,140	157,518	150,351	167,194	191,550		
<i>Eastern District:</i>										
1—FAJARDO	Fajardo	31,395	43,000	35,077	37,189	32,286	40,448	47,000	The Fajardo Sugar Co.	American
2—TRUÑO	Naguabo	3,251	3,029	3,981	3,581	4,125	5,500	5,500	Garzo y Fuertes	Spanish and American
3—PASTO VIEJO	Humacao	9,673	10,231	7,750	7,125	9,146	11,951	12,500	Central Pasto Viejo, Inc.	Spanish and American
4—EJEMPLO	Humacao	5,152	5,997	7,224	7,428	6,424	9,222	9,125	Compañía Azucarera El Ejemplo	American
5—MERCEDITA	Yabucoa	12,447	13,333	18,131	10,000	10,528	16,017	18,000	Yabucoa Sugar Co.	Spanish and American
6—COLUMBIA	Maunabo	5,189	6,559	6,989	6,022	5,819	6,008	6,250	Fantauzzi, Verges y Riefkohl	French and American
7—PLAYA GRANDE	Vieques	8,209	9,902	9,774	8,600	6,405	6,483	9,300	Benítez Sugar Co.	Spanish and American
8—PUERTO REAL	Vieques	5,908	7,100	5,250	6,102	4,847	3,512	6,250	Vieques Sugar Co.	American
(*)		958	1,300	1,029	1,030	383				
	TOTAL	82,185	100,451	99,205	84,377	79,963	99,201	113,925		

SUGAR PRODUCTION OF PUERTO RICO—Continued

CENTRALS	LOCATION	Production of 1918-19	Production of 1919-20	Production of 1920-21	Production of 1921-22	Production of 1922-23	Production of 1923-24	Estimate for 1924-25	OWNERS	NATIONALITY
<i>Western District:—</i>										
1—COLOSO.....	Aguada.....	10,666	11,108	12,508	9,567	12,199	14,803	15,500	Central Coloso, Inc.....	Spanish and American
2—ROCHELASE.....	Mayaguez.....	4,770	4,937	6,180	4,000	4,875	6,000	6,000	Mayaguez Sugar Co.....	American
3—EUREKA.....	Hormigueros.....	3,527	5,045	3,258	3,375	4,446	6,100	7,000	Central Eureka, Inc.....	American
(*).....		11,362	11,479	3,940						
	TOTAL.....	30,325	32,569	25,886	16,942	21,520	26,903	28,500		
<i>Interior District:—</i>										
1—DEFENSA.....	Caguas.....	.....	.....	1,611	.....	4,032	6,354	7,500	Caguas Sugar Co., Inc.....	American and Spanish
2—JULIANA.....	Villalba.....	.....	200	600	884	497	501	1,500	Central Juliana, Inc.....	American
3—PLATA.....	San Sebastián.....	1,462	1,527	2,312	1,437	1,213	1,878	1,800	Plata Sugar Co.....	American and Spanish
4—SOLLER.....	Camuy.....	458	900	1,454	1,088	825	865	1,000	Soller Sugar Co.....	Spanish and American
5—SANTA BARBARA.....	Jayuya.....	585	576	262	313	350	123	1,000	Jayuya Development Co.....	American
6—SANTA JUANA.....	Caguas.....	7,031	11,975	11,761	12,200	6,776	8,088	12,500	S. A. des Sucreries de St. Jean.....	Belgian
7—JUNCOS.....	Juncos.....	13,179	17,000	18,525	12,300	13,227	17,867	20,000	The Juncos Central Co.....	American, French and Spanish
(*).....		2,890	4,375	2,754	1,609	100				
	TOTAL.....	25,605	36,553	39,279	29,831	27,020	35,676	45,300		

SUMMARY

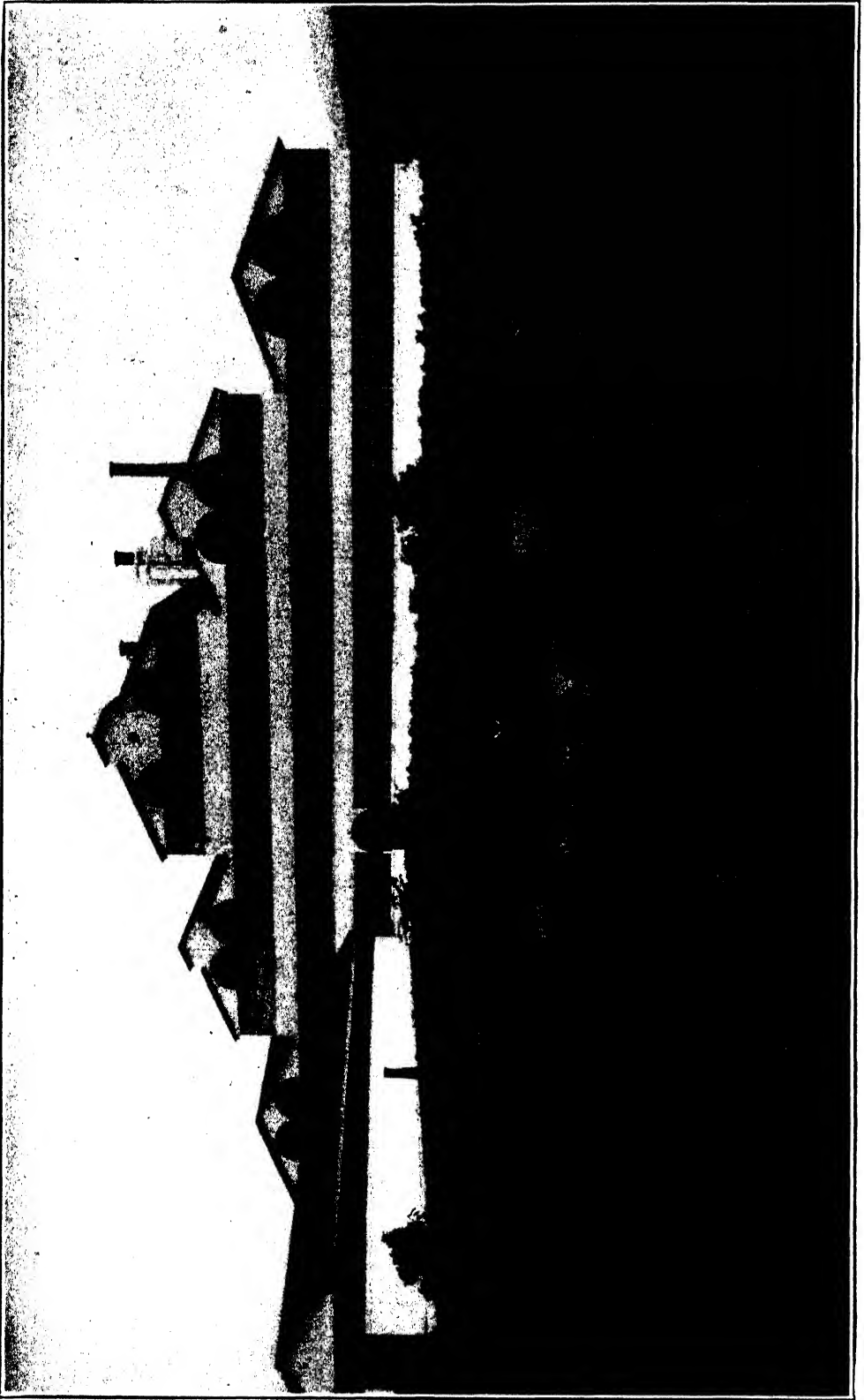
	Number of Centrals	Production 1918-19	Production 1919-20	Production 1920-21	Production 1921-22	Production 1922-23	Production 1923-24	Estimated 1924-25
NORTHERN DISTRICT.....	11	100,241	135,788	136,604	117,268	100,217	118,999	140,200
SOUTHERN DISTRICT.....	10	167,777	180,529	190,140	157,518	150,351	167,194	191,550
EASTERN DISTRICT.....	8	82,185	100,451	99,205	84,377	79,963	99,201	113,925
WESTERN DISTRICT.....	3	30,325	32,569	25,886	16,942	21,520	26,903	28,500
INTERIOR DISTRICT.....	7	25,605	36,553	39,279	29,831	27,020	35,676	45,300
GRAND TOTAL.....	39	406,133	485,887	491,114	405,936	379,071	447,973	519,475

San Juan, Puerto Rico, November 20, 1924.

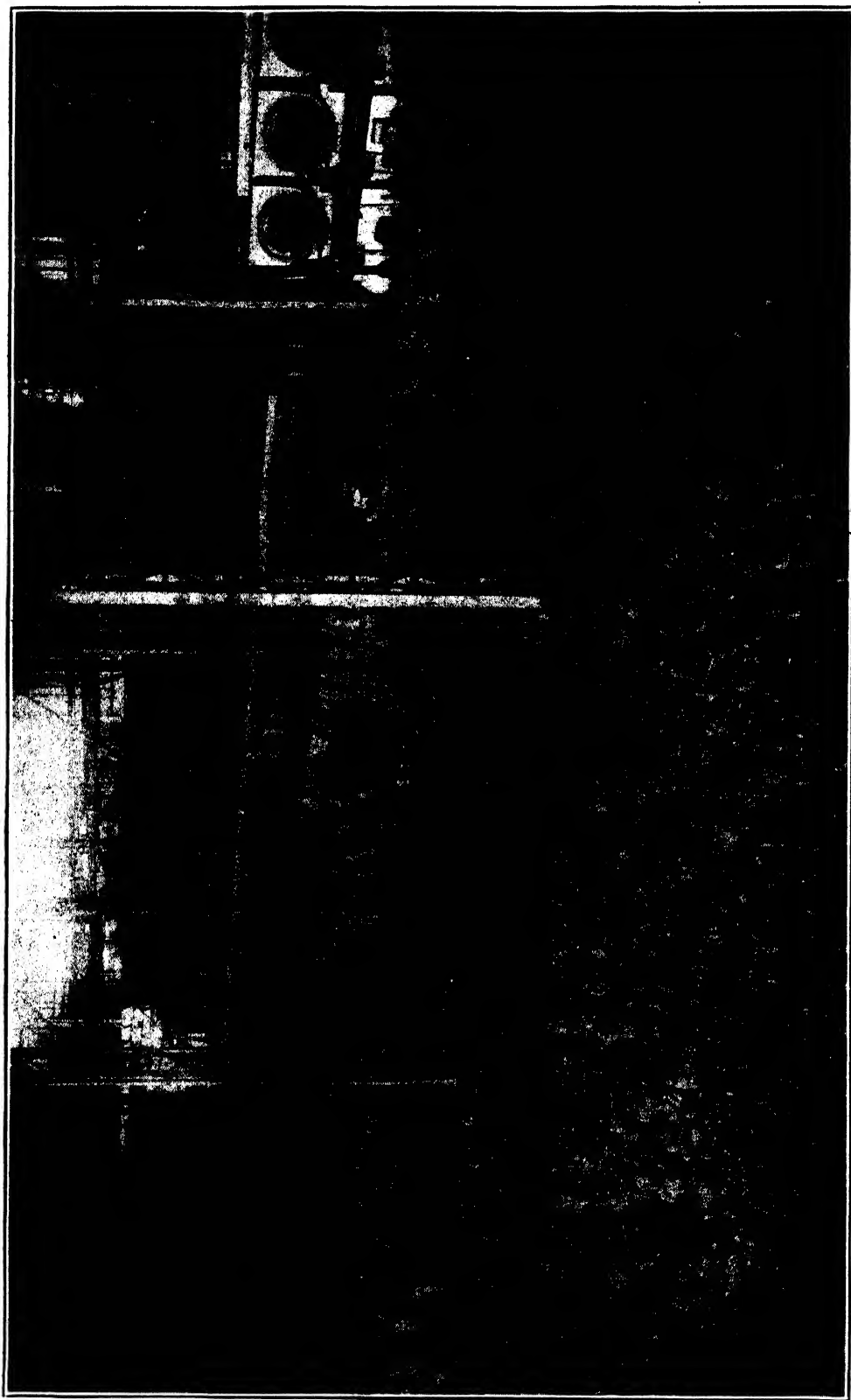
J. RUIZ SOLER.

(519,475 short tons, equal to 463,816 tons of 2,240 lbs.)

(*) Centrals closed or destroyed.



Central Moron, Province of Camagüey



Interior View, Central Moron

The Sugar Industry

Centrifugals for Vertientes

Final arrangements for the enlargement of Central Vertientes which will double its present capacity and make it the largest cane mill in Cuba have been completed with the placing of the order for centrifugal equipment which has just been awarded to the Western States Machine Company of New York. The new installation will include 22 direct-driven electric centrifugals, of which eight will be of the latest self-discharging type with duplex grid linings and special perforated conical bottoms, and 14 will be flat bottom baskets equipped with duplex grid linings, filtering caps, and 1922 simplex dischargers.

The self-discharging machines of both the present station and the new one to be installed will be fitted with R-S 1922 friction drive sprayers, while the set of flat bottom baskets now in use in the mill will be supplied with grid linings and filtering caps and duplex grid lining will be added to the original set of self-dischargers.

Punta Alegre's Production

Production of the mills of the Punta Alegre Sugar Company for the current Cuban season to February 14 is reported as roundly 565,000 bags, or about 100,000 bags more than the outturn to the same date last year. This is approximately 37 per cent. of the company's total estimated 1924-25 production of 1,500,000 bags. An agreement has been made with the United States Industrial Alcohol Company for the sale on favorable terms of Punta Alegre's entire molasses output of the current crop.

Central Jesus Maria

It is rumored in financial circles that Milton T. Hershey is negotiating for the purchase of Central Jesus Maria in Matanzas Province.

Europe's 1924-25 Crop

The final estimate of Dr. Gustav Mikusch, sugar statistician, on the production of sugar in Europe during the 1924-25 season places the total output at 7,049,000 metric tons, raw sugar value. The crops of the principal producing countries are as follows:

Germany.....	1,590,000
Czechoslovakia.....	1,440,000
France.....	800,000
Belgium.....	400,000
Netherlands.....	332,000
Poland.....	490,000
Italy.....	420,000
Russia.....	440,000
Other countries.....	1,137,000
Total.....	7,049,000

Bulgarian Sugar Exports

With a sugar production of between 45,000 and 50,000 tons, which provides a surplus of 10,000 tons or more above inland requirements, the Bulgarian government is taking steps to facilitate the export of the surplus supply. The export duty and all taxes, applying to exports have been removed and reduced freight rates will be allowed on export shipments. In exchange for these privileges the sugar factories have had to bind themselves to supply the home market at prices not higher than the world market parity.

Sugar-Beet Factory Contemplated in England

The erection of a beet-sugar factory in Bury St. Edmunds, Suffolk, has been decided upon. Arrangements for the construction are now being made, and the factory, which is expected to be one of the most up-to-date in the Kingdom, costing more than £350,000, should be ready to handle next year's crop. Work is also to be begun immediately in connection with a beet-sugar factory at Ipswich, Suffolk. (Consul General Horace Lee Washington, London.)

January Sugar Imports Largest in Three Years

Imports of sugar into the United States in January, 1925, were the largest recorded for the month since 1922, amounting, according to the government's official returns, to 307,400 short tons (274,464 long tons). This was 49,000 tons more than was imported in January, last year, when the figures were 258,629 short tons, or 230,918 long tons. In January, 1922, 352,656 tons (314,871 long tons) were imported, and in January, 1923, the figures were 269,955 short tons, or 241,031 long tons.

This year's total was made up of 295,207 tons (263,577 long tons) from Cuba, 9,421 tons (8,412 long tons) from the Philippines, and 2,772 tons (2,475 long tons) of full duty paying sugars. Compared with January, 1924, this was an increase of 60,577 tons in imports of Cubas, but a decrease of 9,573 tons in those from the Philippines and of 2,332 tons in full duty sugars.

Mexico and Peru were the main sources of full duty imports in January of this year, the quantities imported from various countries being as follows, in short tons:

Mexico, 1,520; Peru, 1,050; Netherlands, 53; Canada, 50; Guatemala, 50; Hongkong, 49.

No imports of beet sugar were recorded.

The distribution by ports of entry of sugar imported is shown in the statistical returns as follows in comparison with January, 1924 (tons of 2,000 pounds):

At	Jan. 1925	Jan. 1924
New York.....	109,433	88,618
Philadelphia.....	64,894	57,632
Boston.....	35,636	18,746
Baltimore.....	29,539	28,052
Savannah.....	16,202	6,185
New Orleans.....	30,415	29,807
Galveston.....	13,800	8,217
San Francisco.....	4,747	19,051
El Paso.....	1,211	855
Other ports.....	1,523	1,466
Total.....	307,400	258,629

The value of sugar imported in January, this year, is returned as \$18,238,943, an average of 2.97 cents a pound as compared with an average of 3.83 cents for

sugar imported in December, and 5.50 cents for that imported in January, 1924, when the total value was \$26,016,238.

Extermination of an Agricultural Pest

In order that immediate steps may be taken to exterminate the Prieta fly (*Aleurocanthus woglumi* Quaint), which causes so much damage to citrus fruits, a circular informing farmers that a fungus which destroys this fly will be furnished them upon request has been issued by the Director of the Agricultural Experiment Station of Santiago de las Vegas.

Irish Sugar Consumption

The distribution of sugar in the Irish Free State during the calendar year 1924 is officially reported as 79,676 long tons, of which all but 76 tons was in the refined state. Imports during December, 1924, were 6,255 tons, and for the whole year amounted to 79,144 tons.

United Kingdom Statistics

Statistics of the Board of Trade show that imports and consumption of the United Kingdom during the calendar year ending December 31, 1924, were larger than in the preceding year but less than in 1922. The figures, summarized, are as follows, in long tons:

	1924	1923	1922
Imports (raw and refined).....	1,931,458	1,687,619	2,031,740
Exports Consumption....	19,174	43,759	18,197
Final stocks in bond.....	165,550	157,400	302,850

Of the 1924 imports of raws, 452,117 tons came from Cuba, 125,932 tons from Mauritius, 105,931 tons from Santo Domingo, 89,276 tons from Java, 87,448 tons from Peru, 22,622 tons from Brazil, 55,308 tons from the British West Indies and British Guiana, 68,884 tons from Poland and Germany, and 154,380 tons from other countries.

Of the refined imports, Czechoslovakia supplied 219,818 tons, Holland 170,574, Belgium and France 50,584, the United States 61,040, Canada 25,152, and other countries 71,823 tons.

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated January 19, 1925. At the time of this report, the main feature of interest throughout the Trade was how the raw sugar market was going to stand the production in Cuba, which had started quite rapidly and was breaking all records, as far as the actual sugar produced was concerned. However, this matter was satisfactorily solved by the continued demand, not only from American refiners, but from foreign countries as well. Sales of Cubas to foreign countries have reached, thus far, a minimum of 400,000 tons, and it would not be far out of the way to say, that if full details were available the actual quantity disposed of to foreign buyers was close to 500,000 tons. In addition to the United Kingdom refiners, who have been the largest buyers of Cubas, several countries on the Continent, Japan, China, Argentine and Canada are also included among the countries that have been freely purchasing Cuban sugars.

These conditions had a tendency to keep prices remarkably steady and there were very few fluctuations during the period under review, and these fluctuations have been within narrow limits, the lowest price at which Cuban sugars have been sold during this period being $2\frac{3}{4}$ c c. & f. and the highest price $27\frac{1}{4}$ c c. & f.

Some explanation has come forward during the month to account for the free buying of European interests, and this appears to apply chiefly to the British India crop which is showing a very large reduction in outturn from the preceding one. This should tend to increase the demand for Java sugars, which is India's chief source of supply and, undoubtedly, prevent free offerings of Java sugars to Europe. In order to make up for any scarcity in the offerings of such sugars, the English refiners, particularly, appear to be covering their wants in Cubas. Another matter that causes this demand for Cane sugars on the part of English refiners, is that the European Beet sugar manufacturers are now making very few raw Beet sugars, practically their entire production being White sugars. Previous to the War the English refiners bought large quantities of raw Beet sugars from Germany and Austria, but such sugars are not available in quantity any longer.

Referring again to the matter of the British India crop, we give below extract from our Weekly Statistical Sugar Trade Journal of February 19, 1925, covering the crop production.

"INDIA.—With the remarkable increase in the world's sugar crop and with the outturns of many of them being close to early estimates, this particularly applying to Europe where the crops are about ended, it seemed strange to us that some important sugar country did not indicate a material decrease in its crop. This has at last happened and while the country involved, India, is not an exporting country but an important importing country, the large reduction in the Indian crop will tend to largely increase imports into that country, particularly in view of the present comparatively low prices. Java is the country that usually supplies the greater part of India's wants.

"We are officially advised that the Indian crop now growing, harvesting of which commenced in December, 1924, is now estimated at 2,486,000 tons compared with 3,266,000 tons last crop, or a decrease of 780,000 tons. While the decreased area planted to Cane in India this year gave some indication of a shorter crop, the very large figure of decrease, 780,000 tons, was quite unexpected."

Our refiners have had difficulty in securing an accumulation of raw sugars, as the demand for refined, while at no time heavy, has been sufficient to absorb all their raw purchases as they arrived, but they are now getting in an easier position as Cubas and Porto Ricos are commencing to arrive in volume, the arrivals at the U. S. Atlantic Ports for the week ending February 18th totalling 89,498 tons, the largest thus far this year. On February 19th occurred one of the largest day's transactions in raw sugars that has occurred in the market for some time, sales approximating 500,000 bags Cubas, Porto Ricos and Philippines, all at the basis of $24\frac{1}{8}$ c c. & f. for the Cubas and 4.59c for the

Porto Ricos. At this latter quotation the market is firm with further buying interest, but with holders asking an advance.

REFINED.—Although the raw situation has been quite satisfactory, the refined sugar market has been the reverse. There has been extreme competition between the refiners for the sale of their manufactured product and prices have slowly declined until, at the present time, the general selling quotation is basis 5.90c less 2%. Even this price is not fully maintained, as there are some markets where it is possible to buy Cane Granulated at 5.80c. The demand, as we mentioned above, has been steady and when the daily new business is added to the deliveries from consignments, as well as deliveries from contracts previously placed, each day's business amounts to a satisfactory volume.

The decline in Cane sugars has caused a corresponding decline in domestic Beet sugars and which are now quoted at 5.80c seaboard basis for territory Buffalo-Pittsburgh to the Rocky Mountains.

New York, N. Y., February 20, 1925.

United States Beet Sugar Crop

The Meinrath Brokerage Company of Chicago has issued its final estimate of beet sugar production in the United States during the campaign of 1924-25. According to their figures the output of sugar was the largest in the history of the American industry, exceeding by 115,000 bags the previous high record reached in the campaign of 1920-21.

According to the Meinrath estimate the total production for the season now ending was 21,821,756 bags of 100 pounds, which is equal to 1,091,088 tons of 2,000 pounds or roundly 974,000 long tons. This is an increase of 185,000 long tons, or about 23.5 per cent over the output in the season of 1923-24 and an increase of more than 50 per cent over 1922-23. The estimate of production in the various beet-growing sections is as follows, the figures being in bags of 100 pounds each:

	1924-25	1923-24
California.....	2,641,659	2,076,127
Utah, Idaho, Wash....	2,331,393	4,132,730
Colo., Wyo., Mont., Neb., Kans., N. Mex.	11,142,234	7,468,510
Minn., Ia., Wis., Ill....	1,315,737	873,916
Mich., Ohio, Ind.....	4,390,633	3,130,039
Total.....	21,821,756	17,681,322

As these figures indicate, the greatest gain in production was made in the Rocky Mountain section, amounting to nearly 50 per cent, while the eastern beet territory increased its output 42 per cent. In the Intermountain district, on the other hand, there was a decline of 1,800,000 bags in the crop as a result of the severe drouth and of damage by insect pests and diseases.

Cuba Company

It was announced recently, that the number of enterprises in which the Cuba Company was interested had been increased with the consolidation of the Cuba Railroad and the Cuba Northern under the name of the Consolidated Railroad of Cuba, and that a change had been made in the plan of organization of the Cuba Company and its subsidiaries.

Under the plan Horatio S. Rubens becomes President of the Consolidated Railroad of Cuba, Chairman of the board of the Cuba Northern Railway and President of Cuba Railroad. H. C. Laken retires as President of the Cuba Railroad and will become President of the Cuba Company and *Compañía Cubana*, its sugar producing subsidiary. In addition, Mr. Laken has been appointed general counsel of the Cuba Company and its subsidiaries.

On January 6th the Cuba Company declared a semi-annual dividend of 3½ per cent on its preferred stock, payable Feb. 2, to stock of record Dec. 31, 1924. It also declared a \$1 quarterly dividend on the common stock, payable March 2 to stock of record Feb. 16, 1925.

Jamaican Immigration

It is reported that President Zayas has sent a message to Congress urging it to study the best way of restricting and, if possible, prohibiting Jamaican immigration to Cuba. In his message President Zayas refers to the large number of claims presented by the British government regarding the alleged ill-treatment of Jamaicans.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willet & Gray, de Nueva York.

Nuestra última revista estaba fechada el 19 de Enero de 1925. En el momento de escribirla, el principal punto de interés, era donde el mercado de azúcar centrífugo iría a parar, quien había empezado bastante rápido y estaba rompiendo todos los records, en cuanto a producción de azúcar se refiere. Sin embargo, esta asunto fué satisfactoriamente resuelto por la continua demanda, no solamente por parte de los refinadores Americanos, sino por parte de los demas países tambien. Las ventas hechas a los distintos países alcanzó un minimum de 400,000 toneladas y no iríamos muy lejos si afirmáramos que la cantidad vendida alcanzó la cifra de 500,000 toneladas. A mas de la Gran Bretaña que ha sido el comprador más fuerte, algunos países del Continente Europeo, Japón, China, Argentina y Canadá, están incluidos entre los países que han comprado azúcares Cubanos.

Estas condiciones tenían la tendencia de mantener un precio estable y solamente hubieron muy pocas fluctuaciones durante el periodo de esta revista, y las pocas que hubieron han sido de pequeños límites como lo demuestra que el precio más bajo cotizado de azúcar de Cuba durante este periodo de tiempo han sido ventas a $2\frac{3}{4}$ centavo c. y f., y el mayor precio a $2\frac{7}{8}$ centavo c. y f.

Algunas explicaciones vienen a descifrar estas ventas hechas a los intereses Europeos y ello ha sido indudablemente la gran reducción en la producción en la India Inglesa. Esto como es natural tiende a una demanda del azúcar de Java, de la cual es la India el principal abastecedor e indudablemente provee libre oferta a Europa de azúcar de Java. En orden de no tener carestía, por cuanto a lo que anteriormente decimos, particularmente los refinadores Ingleses, parece ser que cubrirán sus necesidades en Cuba. Otro asunto que causa esta demanda sobre el azúcar de caña por parte de los refinadores Ingleses, es que los fabricantes de azúcar de remolacha en Europa estan haciendo muy poca azúcar cruda, y si prácticamente toda su entera producción de azúcar blanca. Antes de la Guerra los refinadores Ingleses compraron largas cantidades de azúcar cruda de remolacha de Alemania y Austria, pero de estos azúcares no quedo casi nada.

Refiriéndonos otra vez a la producción en la India Inglesa damos más abajo un extracto de nuestra Estadística Semanal de Azúcares de fecha Febrero 19, 1925, cubriendo la reciente producción.

"INDIA.—Con el notable crecimiento de la producción de azúcar mundial y con la particularidad de que muchos de ellos han sido exactamentes de acuerdo con los estimados hechos, especialmente en Europa donde las cosechas estan tocando a su fin, nos parece muy extraño que algunos importantes países azucareros no indicaron disminución en sus cosechas. Esto últimamente ha pasado con India que no es un país de exportación, y si un muy importante lugar de importación. La reducción de producción en la India, dará tendencia a un aumento de exportación dentro del país, particularmente en vista del estado comparativo de precios bajos. Java es el país que actualmente proporciona la mayor parte de las necesidades de la India.

Nosotros estamos oficialmente informados que la cosecha en la India ahora en vigor, que empezó en Diciembre de 1924, está estimada en 2,486,000 toneladas comparada con 3,266,000 toneladas últimamente, lo que quiere decir una disminución de 780,000 toneladas. Mientras que la disminución de caña plantada en la India este año da una indicación de una corta cosecha, con una gran disminución ascendente a 780,000 toneladas, nunca esperada."

Nuestros refinadores han tenido dificultades en asegurar acumulación de azúcar cruda, como así lo demanda para su refinado, pues han tenido necesidad de usar inmediatamente toda el azúcar cruda llegada, pero ahora están en mejores condiciones desde que Cuba y Puerto Rico estan empezando a enviar azúcar en grandes cantidades. Los azúcares llegados a los Puertos del Atlantico de los Estados Unidos durante la semana terminada en Febrero 19, dieron un total de 89,498 toneladas; la mayor del año. El 19 de

Febrero ocurrió uno de los mayores días de transacciones sobre azúcar crudo últimamente ocurrido en el mercado desde hace algún tiempo. Las ventas se aproximaron a 500,000 sacos de Cuba, Puerto Rico y Filipinas, todo a base de $2\frac{1}{8}$ centavos c. y f., para Cuba y 4.59 centavos para Puerto Rico. Esta última cotización del mercado es firme por parte de los intereses compradores, pero con los vendedores tendiendo a mas altos precios.

REFINADO.—Aunque la situación de azúcar crudo ha sido bastante satisfactoria, el mercado de azúcar refinado ha sido todo lo contrario. Han habido competencias entre los refinadores por la venta de sus productos y los precios han declinados poco a poco. Actualmente la cotización de venta en general es sobre una base de 5.90 centavos menos el 2%. Aunque este precio no se mantiene firme, hay algunos mercados donde es posible comprar granulado a 5.80 centavos. La demanda, como nosotros mencionamos mas arriba, ha sido estable y cuando las entregas por parte de los consignatarios, así como las entregas por los contratos hechos anteriormente sea regulada, cada día las transacciones serán más satisfactorias a medida que aumenten su volumen.

La declinación en el azúcar de caña, ha causado también declinación en el azúcar de remolacha cuya cotización es ahora 5.80 en puerto, base para el territorio comprendido desde Buffalo-Pittsburgh hasta The Rocky Mountains.

Nueva York, Febrero 20, 1925.

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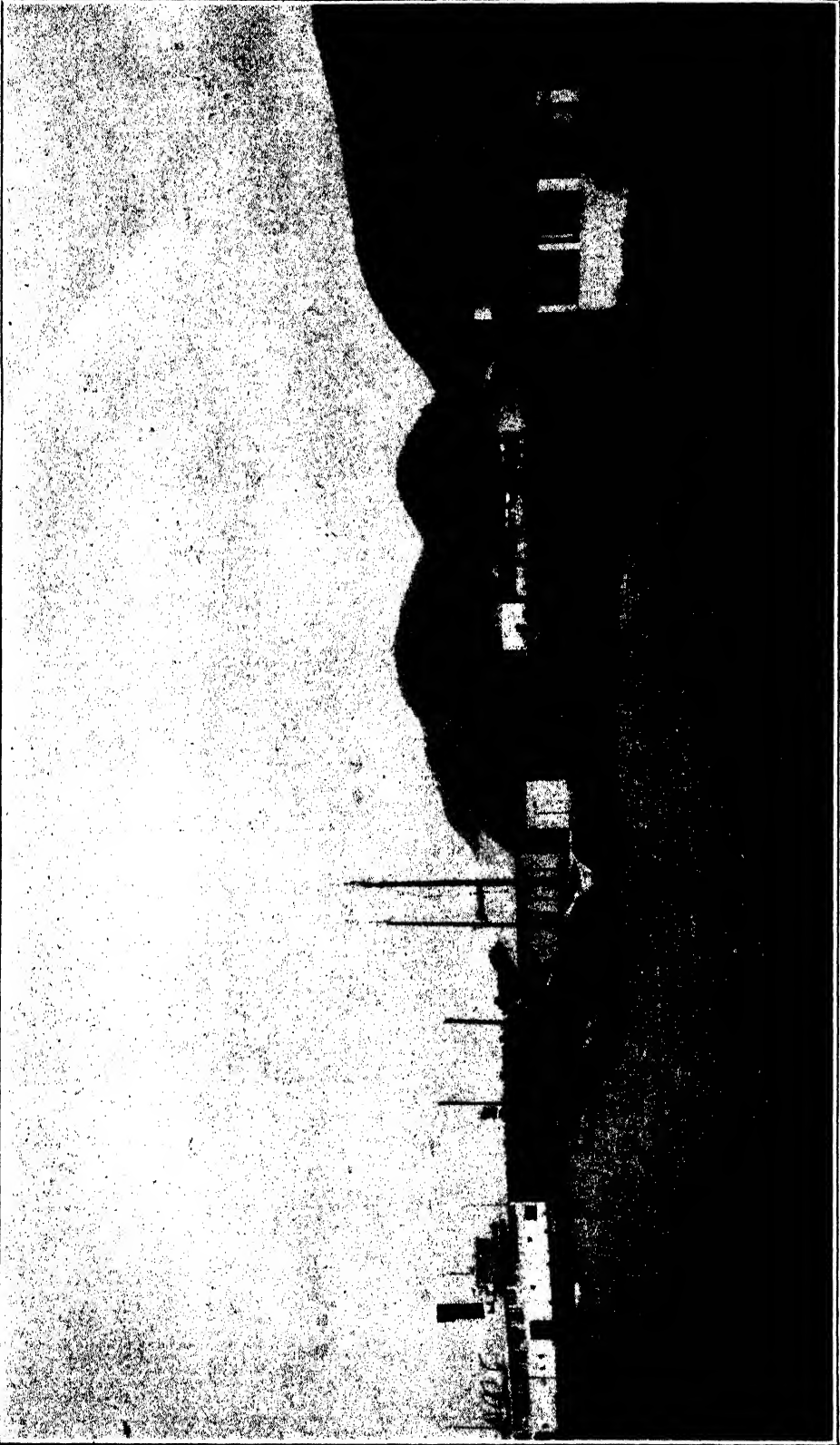
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April, 1925

No. 5

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Water Front, Nueva Gerona, Isle of Pines.

THE CUBA REVIEW

“ALL ABOUT CUBA”

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VOLUME XXIII

April, 1925

NUMBER 5

Cuban Government Matters

Bonus to Cuban Government Employees

The President of Cuba has signed a measure providing for the payment of a bonus to Government employees and providing for part payment of the “floating debt” obligation out of the surplus of the 1923-24 budget. The bill provides for the payment of \$2,822,079 as a 50 per cent. bonus due Government employees since 1921 and for the payment of \$3,500,000 as a 25 per cent. installment on the unpaid portion of the claims approved by the Debt Commission. It also provides that the four succeeding budgets shall each contain provision for the settlement of at least 25 per cent. of the balance due, and from the date of the payment of the first installment interest shall be paid on the amounts due at the rate of 6 per cent. until final settlement is made.

Cuban Budget

A draft of budget for 1925-26 has been prepared for action by the Cuban Congress. It estimates revenues at \$77,791,650, of which \$38,031,000 is credited to customs, \$24,120,600 to internal revenue, \$3,500,000 to the National Lottery, and the balance to miscellaneous receipts. Expenditures are estimated at \$74,402,537.

Invoice Requirement Officially Suspended

The President of Cuba has signed a decree, effective March 6, suspending the earlier decree, requiring the presentation of a manufacturer's invoice with shipments of goods subject to ad valorem duties in Cuba until the objections raised can be studied and a final decision reached.

The Cuban Secretary of State had earlier given informal assurances that the Cuban consular officials in the United States were being instructed temporarily not to enforce this new requirement.

This refers to report by Trade Commissioner C. A. Livengood, Havana, published in the March issue of THE CUBA REVIEW.

Submarine Cables

By decree No. 1673, signed on November 21, 1924, by President Zayas, the All American Cables (Inc.) is authorized to lay additional cables between the American naval station in Guantánamo, Province of Oriente, and the United States, Colón and Panamá, subject to the conditions and requirements stipulated in presidential decree No. 337 of March 21, 1921.

Cuban Mail and Parcel Post Services

Work is in progress on the draft of a parcel-post convention between the United States and Cuba, agreed upon by representatives of the two countries at Habana recently. The convention in its final form will have to be ratified by the Congresses of both countries before becoming effective.

DEMAND FOR PARCEL POST TO CUBA

The absence of an adequate parcel-post service to Cuba from the United States has been keenly felt for many years, but efforts to establish it have always failed because of certain obstacles in the United States and in Cuba. Owing to the fact that the greater part of the parcel post between the two countries would be from the United States to Cuba, the Cuban Government has always maintained that that fact should be recognized and that the United States Post Office should make payments to the Cuban authorities for the handling of packages from the United States. Usually the country originating the service retains the postage paid; but where the flow of traffic is nearly all in one direction, this fact is recognized and the government delivering the parcel-post packages receives an allowance from the country of origin. Parcel-post conventions containing arrangements of this kind are in force between Cuba and some of the European countries.

A more serious obstacle, from the Cuban standpoint, is that provision of the Revised Statutes of the United States which limits imports of cigars and cigarettes by parcel post to packages of not less than 3,000. Packages of this kind, in the case of cigars, would weigh from 33 to 43 pounds—a weight greatly in excess of the parcel-post limit of 11 pounds in force throughout the greater part of the world. Cigars being the only commodity of importance that the Cubans would be likely to ship by that method, this provision of the Revised Statutes renders a parcel-post agreement unattractive from the Cuban standpoint.

The convention now in course of preparation will be executed with the reservation that it shall expire at the end of 14 months unless the Revised Statutes of the

United States are amended to remove the restrictions on the use of the parcel-post service by Cuban exporters.

GENERAL PROVISIONS OF THE PROPOSED CONVENTION

The proposed convention fixes a weight limit of 11 pounds for the parcel-post packages exchanged between the two countries, provides for reimbursement of the Cuban Government for a portion of the expense of handling the parcel post, and contains the usual stipulations in regard to methods of handling and facilities to be furnished. It also carries the express reservation which provides for expiration of the convention in event of failure of the United States to modify the law that would restrict use of the service by Cuban exporters.

The United States Post Office Department estimates that an average of over 50,000 packages per month will be sent to Cuba from the United States under the 11-pound weight limitation. A recent notice in the *Habana Telegram*, quoting the Cuban Subdirector of Communications, gave a figure of 1,200,000 packages per annum received and delivered in Cuba from the United States. It seems probable that this refers to pieces of mail matter rather than to parcel post, as under present conditions there is, strictly speaking, no parcel-post service to Cuba.

For the last few years the United States Post Office Department has been handling parcels to Cuba up to a weight limit of 4 pounds 6 ounces, at American parcel-post rates. This is permissible under existing conventions covering mails; but the weight limit mentioned is so low that a very large part of the package shipments to Cuba have had to go by express, which involves a very expensive system of invoicing, inspecting and handling.

PLANS FOR EXPEDITING MAILS TO CUBA

The conference between American and Cuban post-office officials at Habana took up also the question of expediting the mails from the United States to Cuba. The congestion resulting from the handling of all mail matter at Habana has been the cause of serious delays in the past; in order to overcome the difficulty it was agreed that

a clearing house for Cuban mails should be established in Florida and that the Island of Cuba should be divided into distribution zones.

At the city to be selected as the clearing house, mails for the interior of Cuba will be placed in special bags marked for the particular zone of the island for which they are destined. On reaching Habana these bags will be forwarded to the interior without going through the Habana post office. It is probable that there will be ten zones in the island, selected according to their geographic location and the facilities for reaching them.

CLEARING HOUSES FOR MAILS IN CUBA

The present plan contemplates the following clearing houses in Cuba for the different zones:

Habana.—For offices within the Provinces of Habana and Pinar del Rio.

Matanzas and Cárdenas.—For offices within the Province of Matanzas.

Nuevitas and Camagüey.—For offices within the Province of Santa Clara.

Nuevitas and Camagüey.—For offices within the Province of Camagüey.

Antilla, Santiago de Cuba and Manzanillo.—For offices within the Province of Oriente.

[Based on information from Trade Commissioner C. A. Livengood, Habana, from the *Habana Telegram*, and from the United States Post Office Department.]

Port Improvements, Cárdenas

By law of December 1, 1924, the President of Cuba is empowered to contract for important improvements to be made in the port of Cárdenas, \$2,700,000 having been appropriated from the funds of the Treasury for the purpose. It is required that various channels shall be dredged, a custom house costing 100,000 pesos erected, a concrete wharf built to a prescribed point, and other improvements made. The successful bidder will be allowed to exploit the wharf for fifty years, the rates to be charged being fixed by the government.

School Report for 1923-1924

President Zayas' message, dated November 25, 1924, gives the following data on primary education for the school year 1923-24, which show an increase of 6,058 pupils over the last school year:

New primary schools established:

Pinar del Rio.....	3
Habana.....	3
Matanzas.....	1
Santa Clara.....	1
Camagüey.....	1
Oriente.....	4

Total registration by ages in public schools:

Children under 6 years of age.....	14,721
Children under 7 years of age.....	34,515
Children under 8 years of age.....	43,593
Children under 9 years of age.....	48,134
Children under 10 years of age.....	52,149
Children under 11 years of age.....	46,621
Children under 12 years of age.....	43,874
Children under 13 years of age.....	29,430
Children under 14 years of age.....	12,972
Children under 15 years of age.....	3,832
	377,475

Of these 377,475 pupils, 188,235 were boys, 189,240 girls, 277,652 white and 99,823 colored. The average daily registration was 282,010 and the attendance 207,211, or 73.47 per cent of the registered pupils.

	Number	Pupils (white)	Pupils (colored)	Total registration	Average daily attendance
Night schools.....	54	3,362	2,160	5,522	2,119
Prison schools.....	5	204	236	440	213
Private schools.....	551	31,799	2,737	34,536	30,138
Public schools.....	3,364	277,652	99,823	377,475	207,211
School centers in 76 zones.....	164	3,165	409	3,574	2,954

TEACHERS

	No sex given	Men	Women	White	Colored
Primary schools.....	663	...	...	...	...
Public schools.....	...	913	5,410	5,302	1,021
Private schools.....	...	602	1,173	1,718	57
School centers.....	70	...	...	...	...

There were also 259 teachers for special subjects and 186 assistants.

Enforcement of Prohibition on Imports of Yellow Khaki

The importation of yellow khaki into Cuba, as well as the wearing in Cuba of clothing of that material by others than members of the military forces, is prohibited by a decree published in the *Gaceta Oficial* of January 19, and effective February 15, 1925. This puts into effect the decrees of September 4 and October 19, 1923, which were suspended in order to allow accumulated stocks and goods already ordered to be disposed of.

Havana Correspondence

Fate was very kind to Cuba during the month of March. Two events of transcendental importance to the peace and happiness of this Republic passed into history. First in the list of occurrences was the unveiling of the memorial monument dedicated to the two hundred and sixty officers and men who lost their lives in the explosion which destroyed the battleship "Maine" on the night of February 15, 1898. The importance of the ceremony was accentuated to some extent and made more pleasant by the presence of General Pershing, Admiral Dayton, Mr. Frederick Hicks, American Minister Plenipotentiary, Commander Beardall, Major Bowditch, Major Quekemeyer, Mr. Sturdevant, Captain Johnson and the officers of the battleship "Utah," on which General Pershing and his party returned from a trip to Peru and the continent of South America.

The morning was ideal, the sun shining in all its glory, with the waves of the Gulf of Mexico breaking on the coral coast, while an aeroplane, three miles above, wrote in white smoke against the blue sky of the north, "Viva Cuba Libre and the United States."

Fifty thousand people from Havana and nearby cities crowded the waterfront with machines parked up and down the Malecon in close formation for more than a mile. The monument itself was a work of art, the conception beautiful; two tall shafts of granite rise from a wide base sixty feet into the air, representing Liberty and Justice. Across the top of each rests a beautiful cap of marble supporting a bronze eagle with wings extended. Resting at the foot of a column, one pointing east and the other west, are two of the cannons that were raised from the wreck of the battleship, each draped with anchor chains and decked for the occasion with fresh flowers.

On the southern side of the monument are two bronze figures, representing Cuba and the United States. On the north side facing the sea is still a more beautiful piece of work in bronze, one that stirs the emotions deeply, a heroic figure of the goddess of pity, seated, and supporting in her arms the dead bodies of two sailors in representation of the brave men who lost their lives in the line of duty as a result of the explosion that made itself heard around the world.

In front of the monument, on the edge of the Malecon drive, a pavilion had been erected for General Pershing, his party, the President of the Republic with his Cabinet, and other prominent officials of the Government. A thousand sailors and marines from the battleship "Utah," together with a regiment of Cuban soldiers, were stationed on either side of the monument. Promptly at 10 A. M. General Pershing with his staff arrived. Soon afterwards the President with his wife, followed by the Spanish Minister, members of the Supreme Court and other prominent officials drove up and entered the pavilion. The marine band played the Cuban National Anthem, while President Zayas and General Pershing, ascending the steps at the base of the monument, drew the cords that unveiled the figures above described, while the music of the American "Star-Spangled Banner" floated out across the ocean that lies in front of the scene.

The opening address was delivered by the President. The sentiments expressed were appropriate and seemingly came from the heart. Dr. Zayas is an eloquent speaker and the unveiling of this monument, with the memories inseparable from the loss of the "Maine," gave splendid opportunity for his oration. "This memorial," President Zayas said, "has been erected by the Cuban people to express their affection and gratitude for the victims of the ill-fated battleship "Maine." And this day, in which the memory of our struggle for independence and the generous aid of the North American Republic I recall, will remain eternally engraved in the hearts and minds of both nations.

"Those two columns that rise in the air as if they were to sustain a celestial dome, symbolize Justice, Liberty and the affection or esteem which the people of Cuba entertain for the United States. They represent a memorial from our free and independent Republic."

The President was followed by the Spanish Minister, Sr. Mariategui, who in the name of His Majesty whom he represents in Cuba, placed a beautiful wreath of flowers

at the foot of the monument as a memorial to the unfortunate men who lost their lives on that eventful night in the spring of '98. His words were brief but well chosen, emphasizing the friendly relations and good feeling which has been established and exist today between the Monarchy which he represents and the Democracy of the United States.

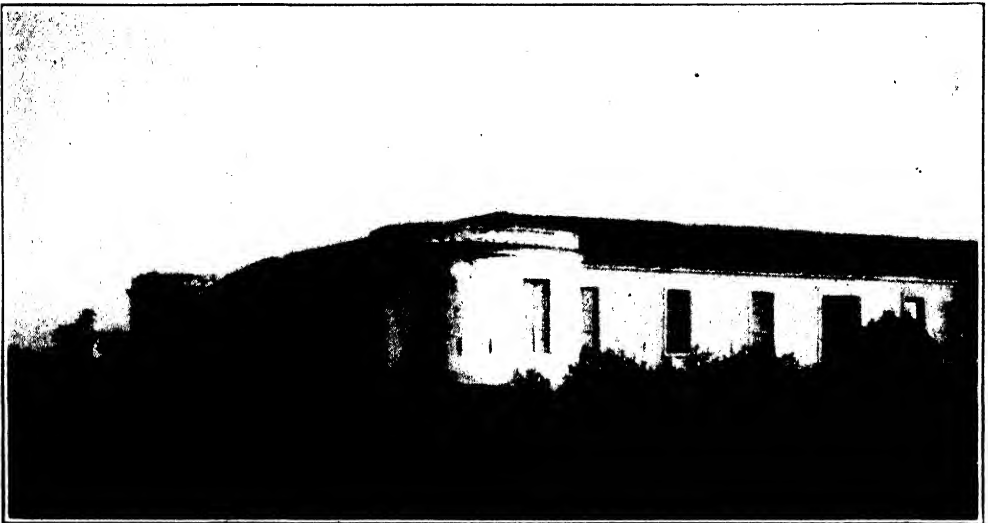
Admiral Dayton of the United States Navy followed. In a brief address, frank and with feeling, referred to the Spanish-American War and to the sentiment of genuine friendship which has replaced the resentment that frequently follows a struggle between two nations, today united by esteem and cordiality.

The last address, delivered by General Pershing, fell upon expectant ears, since this was the first visit to Cuba of the far-famed officer who played such an important part in the World War. During his remarks he paid a beautiful tribute to the people whom he had met in his recent voyage to South America, and especially to the reception given him in this Republic.

Among other things, he said: "The many changes that have taken place in the prosperity and well-being of the citizens of this Republic since Colonial days are without parallel, and let it be said that no people could take greater satisfaction in Cuban progress, in every sphere of endeavor, than our neighbors across the Gulf Stream. In our hearts there is no envy and we covet nothing; we are only glad. We have watched our small sister's progress with a kind and sincere solicitude. With a knowledge of her struggles and aspirations for freedom carried on year after year, her heroism has moved us to admiration, and her sufferings excited our deepest sympathy. Through our association with her on the battlefields of Cuba we helped her secure the independence that she now enjoys. Later her eager desire to enter the World War and to march with us against our common foe gave us new cause for pride. Such things, naturally, form the basis of mutual confidence and a friendship that will grow stronger with the passage of years." General Pershing received an ovation.

THE ISLE OF PINES TREATY—The second event which stirred Cuban sentiment was the ratification on Friday, March 13th, of the Hay-Quesada Treaty, which placed the Isle of Pines definitely and permanently under the jurisdiction of Cuba. This treaty, drawn up in 1903, was ratified at once by the Cuban Government, but sidetracked by the American Senate, in whose archives it had been pigeonholed for over twenty-one years.

Dr. Carlos Manuel de Cespedes, while Minister at Washington, endeavored to have the matter brought before the American Senate for action, but the time never seemed opportune. Dr. Cosme de la Torriente, as soon as he became Ambassador, devoted his



Fort at Nueva Gerona, Isle of Pines.

energies and ability to the same end, and worked incessantly, both in Cuba and in Washington, accumulating evidence, testimony and the opinions of international jurists until the matter was finally brought before the Senate and its ratification secured by a vote of sixty-five to fourteen, eleven more than the two-thirds majority required.

No one beyond the limits of the Republic of Cuba can understand what this final act of justice meant to the people at home. It was not the value of the Isle of Pines, a little bit of territory of only 900 square miles, one-third of which is hardly habitable, that moved the Cuban public so seriously. To the people of Cuba it was a matter of sentiment, of justice, of right or wrong, and the final decision of the United States in favor of her little sister across the Gulf Stream will have more to do with strengthening the ties of friendship between the two countries than anything that has happened since the establishing of this Republic in 1902.

More than all, it has convinced the entire Latin-American world, from the Rio Grande to the Straits of Magellan, that the so-called "Colossus of the North" is not capable of taking undue advantage of a weaker nation, no matter what outside pressure or personal influences are brought to bear. Wednesday, the 18th, was declared by President Zayas a national holiday, and the citizens of Cuba gave expression to their gratitude towards the United States in one of the most significant demonstrations that has ever taken place in Cuba. Twenty thousand people, with President Zayas, the American Ambassador, General Crowder, members of his Cabinet and of the Supreme Court, formed at 3 P. M. under the shadow of the statue of General Maceo and began a march which continued along the Malecon, the Prado to the Presidential Palace, and terminated at Central Park. Behind these, carrying flags of both nations, came representative bodies of all of the various national institutions, clubs, societies, and especially the schools of Cuba, each voicing the sentiment of joy which pervaded in the Republic.

The Army and Navy, in columns of four, brought up the rear. One of the most interesting features of the demonstration was two ladies, beautifully dressed, one with a flag of the stars and stripes and the other with the single star of Cuba. Their hands were joined when they marched, carrying flowers, while a few feet in front, within a triangle formed of colored ribbons, marched a little girl of five or six, dressed in red and yellow, representing a parrot, which is the emblem of the Isle of Pines. Wreaths were placed by the President on the statues of Don Tomas Estrada Palma, Cuba's first President, Gonzalo de Quesada, who signed the original treaty, and the statue of Jose Marti in Central Park.



Street Scene, Nueva Gerona, Isle of Pines.

SUGAR.—Another event of the past month which gives reason for comfort is the fact that the price of sugar has risen to 3 cents a pound, thus eliminating for the time being at least, the danger of grinding cane and making sugar at a loss. We have no certainty, of course, that the price of sugar may not again fall below 3 cents, and the last estimates received in the Department of Agriculture indicate a yield of the present crop that will amount to 4,700,000 tons. This is by far the largest crop of sugar that Cuba has ever produced, and unless the consumption keeps pace with the increase, there is danger that the price may fall below 3 cents before ultimate disposal of the crop now being made. An unusual number of fires in cane fields have taken place recently in which millions of tons of cane have been burned. This may tend to hold the price of sugar above the fatal figure, 3 cents.

But, as before stated, fate has been kind to Cuba during the month of March, and we are inclined to be optimistic. More than all, carnival season has been with us throughout this month, which, naturally, renders joy and mirth the order of the day. The presence, too, of Miss Dorrance Ferguson in Havana, daughter of "Ma" Ferguson, Governor of Texas, has lent additional asset to the celebration.

PINEAPPLES.—The new pineapple fields that have been established along the Western Road in Pinar del Rio Province, are giving greater promise of success than has ever been secured during past years in the red clay lands of Artemisa. Many farmers between Candelaria and the City of Pinar del Rio are bringing suckers from old fields in the eastern part of the Island and forming plantations in the gray, sandy loam sections that lie south of the Organos mountains. A year ago Mr. Carl F. Juengling, a pineapple expert, who spent many years in Porto Rico, made an examination of the soils in the western part of the Province of Pinar del Rio and gave a favorable report on the pineapple possibility of the West, stating among other things that the soil of that section gave an acid reaction to litmus paper, which demonstrated the presence of the essential factors in the production of first-class pines. Four miles west of San Cristobal, Mr. Estrada has set out three hundred acres in the Red Spanish pines, and proposes to increase his acreage to 500 this fall. Others near by are encouraged by this prospect and are getting ready to follow suit.

TOMATOES.—Incidentally, San Cristobal is rapidly becoming one of our most important vegetable districts. A Mr. Read, in charge of property controlled by Mr. Christie of Nassau, Bahama Islands, as an experiment, planted twenty acres in tomatoes during the first months of the past winter. In spite of predicted failure, an excellent crop has been obtained and gathered at the present time. Mr. Read's ripe tomatoes are selling in Havana at \$3 a crate as fast as they can be moved into the city. Two hundred crates were shipped by him to the United States, where they sold at \$5 per crate. The net returns, however, after freight, duty, commissions, etc., are paid, will probably exceed but little the profit of those disposed of in the Havana market.

Highway Construction and Repairs

By law of December 1, 1924, an appropriation of \$60,000 was made by the Cuban Congress for road building, repairing, paving and sewerage, in the municipal district of Sancti Spiritus, which was distributed as follows: \$50,000 for a new road from Guayos to Neiva; \$5,000 for repairs on the Taguasco-Sancti Spiritus road, and \$5,000 for the study of paving and sewer systems for the town. By decree No. 1276 of

September 15, 1924, \$200,000 was assigned to road building and repairing in Habana and its suburbs; and by decree No. 1651 of November 21, 1924, \$74,466 to the continuation of the Central highway to Santiago de Cuba, which will connect Camagüey with Sibanicú. Three sections of this highway have been finished, and 33 kilometers will be opened to the public on the completion of the Imías bridge.

The Three Americas

Radio Talk Broadcast from Station WRC, Washington, D. C.
Thursday Evening, February 19, 1925, at 9 o'Clock, Under
the Auspices of the Pan-American Union

By Dr. Julius Klein,

Director, U. S. Bureau of Foreign and Domestic Commerce.

Some of you may doubtless be wondering whether there has been a slight error in arithmetic or geography in this reference to the *Three Americas*, and whether the good old division of the new world in our school geographies was North and South America is no longer valid. As a matter of fact, geographers and business men are more and more inclined to the use of a third term, namely, *Middle America*, applying it to the West Indies, Mexico and the isthmian lands of Central America. This is by way of a reminder to us of the totally different conditions—geographical, climatic and racial—prevailing in that section, which contrast so sharply with those to the north and south.

In fact, it would be even more accurate to refer to our southern neighbors as the "Twenty Americas." One of the outstanding faults of our thinking with reference to them—I was going to say our most serious fault, not only from the political and historical point of view, but from the matter-of-fact angle of our trade and economic relations—has been our failure to appreciate the extraordinary diversity of those basic conditions of population, topography, resources and climate, which affect so profoundly the institutions, the trade, and in fact the whole life of the people in each one of these republics. The individuality of each stands out unmistakably in contrast with every one of the others.

And yet we refer glibly to all of them as one group or unit—Latin America or Hispanic America.

Incidentally, we in turn are a bit puzzled, perhaps even provoked, by their allusions to us as the United States of North America. As a matter of fact, it hardly behooves us to take offense at that title, even though we have laid claim to the broader one, the United States of America, in some of our official usages. I say some, because the next time you have a dollar bill in your hand just glance at the blue seal on it and you will find it labeled in Latin as the seal of the Treasury of *North America*.

Our forefathers, and especially the first Secretary of the Treasury, Alexander Hamilton, himself a native of the West Indies, and Washington, who visited those islands during his early manhood, appreciated the propriety of such a distinction. Furthermore, it is well for us to remember that for many decades after the discovery of the mainlands of the New World the name America was applied only to the southern continent.

So much for history and geography. But this point of wide diversity among the many separate elements in the Americas is absolutely essential to any lasting progress in our commercial relations with Latin America. Under no circumstances should our business men assume that what is effective or correct in their dealings with Mexico will necessarily be equally so in Chile. There is quite as much contrast between a Uruguayan and a Guatemalan as between a Frenchman and an Italian, and the distinctions between the general economic and physical conditions in their respective countries are even more marked. Hence the absurdity of such common questions currently asked of the Department of Commerce by business men and others interested in Latin America as to what is the climate in Latin America, or what kinds of food, clothing and furniture are required by the people there, with the expectation of a neat, compact generalization applicable to the whole vast area.

For purposes of appraising trade prospects, it is not only useless but seriously misleading to attempt to visualize "a typical Latin American," just as it is impossible to depict a typical *North American*, who would have to be a weird mongrel of Eskimo, Florida orange grower, California rancher, New York banker, French Canadian lumber-

jack, etc. The first essential to the success of our trade with Latin America is a respectful consideration of the widely divergent requirements and possibilities what might be called the economic *individuality* of each country. Our southern friends are quite rightly incensed when we undertake to fasten on them the relic of our school geography days, namely, the impression that all Latin America is a composite of volcanoes, palm trees, revolutions and swarthy gentlemen in sombreros.

And while we are on the subject of ancient fictions, I would like to dispose of another, equally misleading in the field of trade, namely, the bugaboo that we must take great care to sell the Latin Americans only those things which they have always bought, and under no circumstances to offend their pride and love of tradition by introducing them to anything new. I sometimes suspect that our European competitors are not entirely disconnected with the spread of that notion among ourselves. But when you come to think of it, if that idea had been rigidly adhered to by our merchants, what would have happened to the export prospects of such universally known American specialties as safety razors, cash registers, sewing machines and typewriters? That sweeping generalization against undertaking to sell Latin America any new devices or designs is in a way a reflection on their well-known spirit of progress and initiative. They want the latest and best. In women's fashions, for example, it is well known that Buenos Aires and Rio de Janeiro are usually six months ahead of New York.

Our total trade with Latin America, exports and imports, has increased two and a half times in the last ten years, rising from a pre-war average of about \$730,000,000 to \$1,800,000,000 in 1924. And the significant feature of this commercial advance on the export side is found in the fact that much of it is what might be called "new trade," made up of commodities which we did not send to Latin America in any quantities previous to the war—moderately priced automobiles, films, office furniture, construction machines, ready-made clothing, etc.

There is reason to believe that a good part of this increase in our trade is due to the foresight and encouragement of the Budget Bureau and Congress in providing for the steady expansion of the informational and trade promotive facilities of the Department of Commerce in this field. There are now ten offices of commercial attaches and trade commissioners in the leading Latin American trade centers, which is double the number three years ago, and provision has been made for more in the future.

One of the greatest advantages in our favor in trading with Latin America is that that enormous territory is, economically speaking, a new land, whose resources—strikingly similar to our own in many respects—have scarcely been touched, in need of those very labor-saving devices, agricultural implements, transportation facilities, mining machinery, etc., which were so indispensable in opening up our own new lands in the West. For example, the road-building campaign which is going forward in all parts of the southern countries is attracting the most enthusiastic and effective collaboration of our engineers and construction companies. The Latin American republics appreciate the profound importance of highways, not only as arteries of commerce, but also as bonds of unity between their widely scattered political units. It is no mere accident that those sections of Latin America which have the lowest per capita mileage of highways and railroads are also apt to have the highest per capita average of revolutions. The good old Roman principle that a well-built highway is the first essential to security and order is as valid in the Latin American empires of the New World as it was in the great Latin empire around the Mediterranean.

There is some anxiety among our merchants as to the prospects for their trade in the southern markets, particularly in view of the impending activities of our European rivals. There can be no doubt that this coming competition will be intense, and it is well to appreciate the disadvantages under which we will be laboring there. In the first place, these rivalries will be especially sharp in the great competitive markets of southeastern Latin America, which are quite as accessible from Europe as from the United States and have not been affected from a commercial point of view by the construction of the Panama Canal. Furthermore, these areas are in some important lines, such as

meats and cereals, really trade rivals of the United States, and the possibilities of such heavy interchanges of commodities as takes place between them and Europe would seem to be less likely in our own case.

Nevertheless, there are many significant factors developing in our favor. Foremost among these is the trebling during past decade of our investments throughout Latin America. Exclusive of government bonds, they now stand well over \$3,000,000,000 as against a little over one billion in 1913. American capital has a dominant position in such basic industries as mining on the West Coast and in Mexico, meat packing in the River Plate region, petroleum in Mexico, Colombia and Peru, and sugar and tobacco in Cuba. Significant advances are also probably along certain lines in Brazil. This participation by American capital in the economic development of Latin America not only stimulates the growth of an important market for American supplies incident to such large scale operations, but makes an even more important contribution by bringing into use hitherto untouched sources of wealth and well being, which has reacted profoundly upon the standards of living and the general social and economic outlook for great masses of population in the southern republics.

I might mention here an interesting index of the amazing increase of interest in Latin America on the part of our business community, namely, the number of inquiries on Latin American trade received by the Department of Commerce. In 1922 there were 76,000 such inquiries; the number was doubled in 1923; and in 1924 the total rose to 322,000, or more than four times the quantity two years ago—an average of over 1,000 for every working day. Apparently our business men are no longer under the ancient impression that Latin American markets are far off in some remote inaccessible corner of the globe. They are beginning to realize, as are most of us, that each day we renew our contacts and indebtedness to those territories, from the time we take our breakfast coffee in the morning, which very probably came from Brazil or Colombia, regardless of the mystic names of Mocha and Java. Each of us pays tribute to our southern neighbors from the Argentine quebracho tanning extract in the soles of our shoes to the nutria fur in our fedora hats. The world at large is realizing more and more the amazing economic possibilities and resourcefulness of these rich empires, which were the original homelands of so many gifts of nature—chocolate, rubber, quinine, cocaine, and even the lowly potato, Indian corn and many others.

A profoundly important influence which will affect our trade prospects in the coming years is in the field of communications. Our shipping service to the Latin American seaboard is no longer a cause of shame and humiliation to us, as was the case a decade or two ago. Both the privately owned lines and those of the Shipping Board are now setting a standard of service, speed and regularity of sailings which our rivals are finding it difficult to meet.

Here is another important phase of communications—European-owned cables in Latin American waters now total about 25,000 miles, which is slightly less than their pre-war figure. The American mileage, however, has increased from about 14,000 before the war to 34,000 at the present time. There were few things which contributed more directly to European prestige in the eyes of the average Latin American before 1914 and to European trade advantages over us than the vastly superior cable service from the Old World in comparison with that from the United States. Today the situation is precisely reversed; the average large Latin American newspaper now carries as much material on the United States—accurately prepared by the great press associations—as it does on all the rest of the world put together. The result is that the episodes of our day-to-day existence are being viewed in a much fairer light than was the case before the war. And the tremendous possibilities of inter-American radio in this connection scarcely require comment.

The participation of the United States in the great new development of Latin America will bring advantages not only to both parties in the new world, but in the restoration of the old world as well. Our contribution toward the new economic life and strength of the southern republics will be a vital element in the increase of the flow of

those resources that are so necessary for the economic recovery of Europe. Latin America's truly extraordinary advance during the past decade offers secure ground for the conviction that there is not only ample room, but an actual need for the United States and Europe to collaborate with the rapidly growing native commercial, financial and industrial communities in those countries in bringing them into their world's economy.

The Instructional and Experimental Sugar Factory of the Imperial College of Tropical Agriculture

1. The History of the Factory

By C. Y. Shephard, B.Sc. (Econ.)

The model and experimental sugar factory of the Imperial College of Tropical Agriculture has entered upon its first crushing season and the result of the operations during 1925 will be awaited with considerable interest. The original idea must be attributed to the energy and foresight of Sir Francis Watts, K.C.M.G., D.Sc., our principal emeritus, whose interest in, and work on behalf of, the prosperity of the British sugar industry is universally recognized. It is a matter of deep regret that he was unable to be present at the official opening ceremony of the factory which owes its existence to his persistent efforts, but we are glad to record that his absence was due to the fact that, even in his retirement, his services have been requisitioned by the Secretary of State for the Colonies to report on methods for rehabilitating the fortunes of one of the distressed parts of the great Empire in whose service he has spent the whole of his active career.

The scheme for the erection of the model sugar factory was enthusiastically adopted by the governing body of the college and the services of an eminent expert, Mr. Claude Berthon, A.M.I.C.E., were secured to assist in the promotion of the scheme. This gentleman was instrumental in convening a meeting at the Royal Technical College, Glasgow, on June 14, 1921, at which he and Sir Francis Watts explained the objects of the proposed factory to an enthusiastic body of sugar machinery manufacturers and other interested gentlemen. It is a remarkable tribute to the generosity and far-sightedness of the British sugar machinery manufacturers that the meeting resulted in the promise of practically the whole of the equipment, to the value of £20,000, for the proposed factory. The result is that the model factory is equipped with a full complement of the latest types of sugar manufacturing machinery supplied by the world's finest manufacturers and is capable of manufacturing a very wide range of commercial sugars by the most modern processes.

Unfortunately a hiatus occurred. Faced with the difficulty of securing sufficient funds to complete the new buildings of the college and in the absence of what Mr. Fisher described as "a corps of well-trained millionaires," which appears to be at the command of every American university, the idea of the sugar factory had temporarily to be shelved. The planting community of the small colony of Trinidad and Tobago, with unparalleled generosity, and in spite of the fact that the colony is but slowly emerging from the trough of a profound trade depression, magnanimously urged upon its government that a produce tax should be imposed upon agricultural exports with a view to raising approximately £50,000 in order that a beginning might be made to the permanent buildings designed by Major Corlette, O.B.E., F.S.A., F.R.I.B.A.

With funds for the college building assured by Trinidad and other Colonial governments, the idea of the sugar factory was resuscitated with renewed vigor, and events have since moved rapidly. Special recognition is due to Mr. Claude Berthon, who is responsible for the design of the factory and the co-ordination of the constituent elements of machinery. The whole of this arduous work has been performed by him in an hon-

orary capacity as consulting engineer, and all connected with the college are extremely grateful to him for the important services which he has rendered.

The factory was erected under the direction of Mr. G. Mayes, who assisted Mr. Berthon in the design. Mr. Mayes now occupies an important position in the Basseterre Sugar Factory, St. Kitts. The factory will be operated under the direction of Mr. O. F. Boyd, professor of sugar technology, son of Colonel Thomas D. Boyd, president of the Louisiana State University, to which is attached the Audubon Sugar School in which Professor Boyd was trained. The college course in sugar technology and the machinery of the factory are fully described by Professor Boyd in the two succeeding articles.

The model experimental sugar factory of the Imperial College of Tropical Agriculture is the first of its kind to be erected in the British Empire, although pride of place must be yielded to America, where the Audubon Sugar School of the Louisiana State University was the first instructional and experimental sugar factory in the world. Astonishing claims are advanced on behalf of this school and it is earnestly hoped that when the sugar factory of the Imperial College of Tropical Agriculture can boast of the same ripe experience she will be able to advance equally ambitious claims.

There has recently been a strong revival of interest in the production of sugar in the British Empire. The sugar industry has always been the plaything of legislators and ministers of finance, and sugar is at present one of the world's most universally taxed commodities, and a number of foreign countries, particularly the United States of America and continental countries, have skilfully adopted their tariff to foster the industry either within their own territories or in those of their "financial" colonies. The British sugar industry has been cursed, rather than blessed, with a surfeit of legislation, and the inconsistency of policy of successive ministries has had a most demoralizing effect upon the industry as a whole. It is to be hoped that the recent legislation for the encouraging of both the beet and cane sugar industry in the British Empire marks the end of this weathervane legislation. The Empire is capable of producing a supply of sugar entirely adequate for its needs and there is no reason why, with favorable legislation, the Empire should not become entirely independent of foreign supplies.

It is eminently fitting that the completion of the sugar factory of the Imperial College of Tropical Agriculture should coincide with this revival of interest, since the college possesses adequate facilities for the training of sugar technologists in every branch of factory control. One thing only is lacking, namely, an estate of a size commensurate with the needs of the sugar factory for sugar cane, and, in addition, the other tropical crops for the training in the cultivation of which the college offers unique facilities. The college lacks even an adequate area for the cultivation of sugar cane upon an experimental scale, but it is essential, if the college is to fulfil its Imperial aim, that it should be in a position to offer equal facilities for the technical training in the cultivation of the sugar cane. The relation between the estate and the factory should be of a highly intimate nature. The college is fortunate in being situated in an area abounding with large scale estates whose proprietors and managers have generously offered facilities for study to the staff and students of the college, but admirable though they are, they form no substitute for the knowledge and confidence which can be obtained only from a practical handling of men and an intimate contact with the problems which confront every sugar estate manager in the tropics. The acquisition of this estate, which would be of an essentially reproductive nature, is a part of the accepted policy of the college, but the idea languishes through the lack of adequate ways and means. It may be that the generosity of those interested in Empire development will afford us facilities to justify ourselves. "*Via colendi haud facilis.*"

2. The College Course in Sugar Technology

By Professor O. F. Boyd, B.A. (University of Louisiana)

It will be generally agreed that the Imperial College of Tropical Agriculture, in establishing a course in sugar technology has done a very wise and helpful thing for the

West Indies, and the sugar-producing world at large. There are only two or three sugar schools in the world where one can receive specialized training in sugar technology, and there is always a great demand for trained sugar technologists and specialists. Scientific production has been sadly lacking in the past in cane sugar manufacture, and it is not to be compared with the strict chemical and technical control in use in beet sugar factories.

The world's supply and demand of sugar is constantly increasing, and although they may fluctuate yearly slightly, the production has been on the upward trend for the past thirty years. The importance of a scientific, technical and chemical control of the factory and field work is being recognized and acknowledged more and more every year. The old slipshod methods of "rule of thumb" are being cast aside for the more modern methods of chemical control and scientific cultivation.

The purpose of the college course in sugar technology, which will be pursued this year for the first time, is to train technologists in the manufacture of sugar, in all of its various phases, and to give them a thorough practical and theoretical knowledge of the principal processes of fabrication. To this end the college has been fortunate enough to secure an appropriation for an experimental factory, which is erected on the college grounds, and the factory will be in actual operation this coming grinding season. It has been so designed and erected that numerous experiments are possible. Various processes and methods can be carried out without any material alteration being made in the machinery. The capacity of the various units in their relation to the milling capacity are sufficiently large to allow extreme flexibility in the various processes of manufacture. The desirability of this condition is obvious. The factory can be converted into one of almost any type within a reasonably short length of time, and hence the type or grade of sugar being manufactured can be altered at will. Arrangements have been made to convert the factory into a small refinery and thus enable it to refine part, or all, of its own raw sugar. The machinery is of the latest type, and is partly a gift of the various manufacturers of sugar machinery in Great Britain. The building is of steel construction and fireproof.

The magnificent opportunities for actual practical experimental work are easily recognized, and it will be the aim and purpose of this department to take advantage of them.

A complete course of lectures on sugar manufacture in all of its various phases will be given. The various processes for manufacturing the different grades will be described and studied, and arguments presented as to their merits and demerits. As the lectures upon the manufacture of sugar in its various phases and processes are given, their practical accomplishment must be carried out simultaneously in the factory and analyses made in the laboratory of the juices, syrups, molasses, etc., and a complete routine established. In this way an actual demonstration of the process accompanies the lecture and laboratory work. It will be the aim of this department to combine as much as possible the theoretical and the practical side, which in turn will make an understanding of either feature infinitely simpler.

This plan will obviously offer numerous opportunities for study and research. It is the intention of this department to use every process possible and to keep a strict chemical control on the factory at all times, so that various comparative data may be obtained. The laboratory work will be conducted exactly as it is done in a larger factory working on a commercial basis, and a close check kept upon losses and yields. A system of sugar factory bookkeeping and report work will be installed similar to those in use in the most modern factories today. For the present it will only be possible to install a very small factory laboratory and this room will be used for controlling acidities and alkalinities. The analysis and routine work will take place in the laboratory in the college building, which has been especially equipped for that purpose.

The construction of the machinery and the elementary principles under which the various units operate will be treated under a course in "Chemical Machinery." This course will be required of both second and third year students. A study of the principles of boiler construction, steam, horsepower, heat units, etc., will be included in this

subject. Comparative fuel values, and fuel economy of various processes, is an important line of study in any industry, and this will be introduced into this course.

The agricultural engineering course will be partly taught by the Agronomy Department. It will consist of a series of lectures on the use of farm implements, tractors, haulage, irrigation and drainage problems.

A two-year course in Spanish will be offered to students of sugar technology and will be compulsory. The course will be open to any student who has reached the second year. The importance of a speaking knowledge of Spanish to one engaged in any phase of the sugar industry is quite manifest. It is practically essential that factory superintendents, engineers and chemists, engaged in the industry in Spanish-speaking countries, be able to speak the language. Students will be also encouraged to obtain if possible a working knowledge of Dutch. And as soon as one who intends to follow sugar work begins to study the elements of the language, the quicker and more readily is a speaking knowledge acquired. Nearly 50 per cent. of the world's sugar supply is manufactured in Spanish-speaking countries, and in Cuba alone over four million long tons will be produced this year. One who is to be trained in sugar technology cannot therefore expect to have completed his training without a knowledge of the above languages spoken in the largest sugar-producing countries. The importance of a working knowledge of these foreign languages is often overlooked in respect of other branches of tropical agricultural science, and their inclusion in the curriculum is likely to serve a generally useful purpose in the college instruction.

The micro-biology and the study of the fermentation of molasses will be taken up by the micro-biological department. This knowledge is very necessary as numerous distilleries are run in conjunction with factories, utilizing the waste molasses for the manufacture of alcohol and rum.

The economic and accounting phase of the industry will be gone into by the economics department, and statistics will be furnished of yields and losses by this department. In this manner estimates of the comparative costs of production expended in various processes can be arrived at, and statistics compiled.

In summarizing briefly the foregoing: The objects and purposes of the course are to furnish theoretical and practical instruction in the manufacture of sugar. This instruction is to be accompanied by practical factory and laboratory demonstrations, and by operating the experimental factory under the same conditions as a larger factory would operate upon a commercial basis, especially in regard to labor and fuel. The results obtained from experimental demonstrations would therefore be comparable with those in a parallel case in a larger factory.

The opportunities for research work and investigations of various conditions in the factory are manifold, and every encouragement and cooperation will be offered to anyone not connected with the college who is interested in any phase of the manufacture of sugar and cares to go into any of its numerous problems.

It is the intention of this department to give lectures frequently upon various subjects of interest to those connected with the industry. The public will be invited to attend these lectures, and it is hoped that estate owners, engineers, chemists, overseers, pan-boilers and anyone in the least interested will do so.

A thorough cooperation with the local factories will be undertaken and a study of local conditions made, with a view to building up a feeling of cooperation which will tend towards helping the students, the staff and those connected with the industry to a possible solution of problems, with a mutual benefit to all.

3. Description of the Machinery

By Professor O. F. Boyd, B.A. (University of Louisiana)

The experimental sugar factory which is now being erected upon the grounds of the Imperial College of Tropical Agriculture is rapidly nearing completion, and actual manufacturing operations or crushing will begin the first week in March.

The local department of agriculture has very kindly consented to furnish about two thousand tons of canes for the factory. These canes are of numerous varieties and will give an opportunity for observing the milling and factory conditions as they vary with the different types. Although not entirely a gift, the supply of canes will be partly so. It is the intention this year to try and make the factory pay financially, that is, to clear enough from the sale of the sugar and molasses to pay the actual operating expenses, and with this end in view very little change will be made in the type of sugar manufactured. Yellow crystals will in all probability be the principal grade of sugar to be produced—because of the good market here for that particular type.

The idea of the Experimental factory was perhaps originally that of Sir Francis Watts, and although its erection was discussed for years, and appeals for money made, it was not until the past year that the actual building operations began, and a department of sugar technology in the Imperial College of Tropical Agriculture was established. The equipment and machinery in the factory is largely a gift of the various manufacturers of sugar factory machinery throughout Great Britain and it is mainly through their generosity and kindness that the erection of the factory was made possible.

Most of the other large mills evaporator, etc., units are entirely the gifts of their producers, but in some cases the unit is only partly a gift inasmuch as a substantial reduction in price has been allowed.

As the cane enters the factory yard it is weighed on a weigh bridge which is a gift of Henry Pooley & Son, Ltd. The scale beam and operating section are enclosed in a small house so as to protect the operator from the weather. The cane will be transferred to the cane carrier by hand, and thence to the mills, where it is crushed and the juice extracted.

The entire milling plant consists of the cane carrier, an eleven roll mill, and megass elevator, all of which are driven by one steam engine. The entire plant was furnished by Mirrlees Watson & Co., Ltd., as a gift to the college. The mills are of sufficient capacity to crush two or three tons of cane an hour and are 16 inches by 21 inches. The driving engine is fitted with a link-reversing gear so that the rolls can be reversed if the occasion should arise. A very unique megass weighing machine has also been installed, so that an accurate check can be kept on milling operations, as well as fuel and boiler problems. This weighing device is the gift of S. Denison & Co., Ltd., and is perhaps the only one of its kind in existence.

After the mixed or dilute juice has left the mills it is pumped to a nest of tanks almost at the top of the building. From these tanks it is drawn into large pivoted tins set upon a scale, where it is weighed. These weighing machines are so hinged that they can be tipped over and the juice discharged into similar nest of tanks just underneath the top nest. The weighing machines are the gift of W. & T. Avery, Ltd.

After the raw juice has been weighed and discharged from the weighing machines into the lower ranks, the process of clarification is ready to be started. Almost any type of clarifying can be carried out, and changes made in the process at any time. This is made possible by the extreme flexibility of the arrangement of the pipe lines, and the large capacity of the other units in proportion to that of the mills. The piping is so installed that the flow of the juice can be sent in almost any direction, to conform with the necessities of the particular methods of manufacture in use. As it is obviously impossible to describe in this space more than one process, an effort will be made to outline the manufacture of plantation white sugar, and to follow to flow of the various juices, syrups and molasses throughout this process, mentioning and describing the different units used in the above-named method.

The juice upon leaving the lower nest of receiving tanks can be saturated with sulphur dioxide either in a sulphur tower or in a sulphitor, and thence pumped to the liming tanks, where milk of lime is added until the required acidity is reached. The treated juice is now pumped through the juice heaters, one of which is a high velocity heater, and the other a low one. These are the gifts of A. F. Craig & Co., and can be used either as separate units or in series. The heated liquor is allowed to subside or

defecate in open subsidiers, the clear juice drawn off and sent to the evaporator charge tank and the scums retreated and allowed to settle again in the second subsidiers, the clear juice is again drawn off and sent to the evaporator charge tank and the scums to the filter press charge tank.

The scums are treated in the usual way, limed and boiled, and filtered through plate and frame presses. The presses have been presented to the college by S. H. Johnson & Co., Ltd., together with a three-throw pump and the charging and receiving tanks. Two of the presses are to be used for filtering juice scums, while the third may be used either for juice scums or syrups. S. H. Johnson & Co., Ltd., have also furnished, as a gift, a small gravity filter of the Phillippe type for the filtration of the syrup, together with the necessary charging and receiving tank.

The filtered juice can either be mixed indirectly into the clarified juice going to the evaporators, or if too highly alkaline it can be returned to the liming tanks and sent through the process again.

The main body of the clarified juice is now ready for the evaporation process. The evaporator is a triple effect presented by the Harvey Engineering Co., Ltd., and has 700 square feet heating surface. It is mounted upon staging, also furnished by the above firm.

The vacuum engine or pump has been presented by George Fletcher & Co., Ltd., along with two surface condensers, one of which is connected to the pan, the other to the triple effect. The pump serves the purpose of producing vacuum for both the pan and the triple and is connected to both condensers. The valves are so arranged that either unit can be cut out of service when necessary. The circulation water pump is the centrifugal type, motor driven, and was a gift of Drysdale Co., Ltd.

The concentrated thick juice or syrup, after leaving the evaporators, may be treated in numerous different ways due to the flexibility of the arrangement of the piping and the apparatus. In this process, however, for plantation whites, it will be resulphured and filtered through the gravity filter described above and sent to the pan charging tanks and concentrated to sugar. It will be unnecessary to describe the various methods of boiling and of pan work in use in manufacture of plantation whites, but it will suffice to say that the method best adopted to the local conditions will be sought for and adopted.

A three-coil vacuum pan was furnished as a gift by A. & W. Smith, and has a capacity of 50 cubic feet. It is of the most modern type and equipped with the necessary accessories, including a cup for seeding or shock graining. Beneath the pan are three water and steam jacketed crystallizers of the open type of about 55 cubic feet capacity, and below these is the mixer, these units have been given by Watson, Laidlaw & Co., Ltd., and Potts, Cassels & Williamson have donated the two centrifugals just beneath the mixer. The massecuite can be discharged directly into the mixer or into the crystallizer, and the mixer is divided into two compartments to facilitate the separation of first and second sugars. There has been no provision made for a granulator, but it is to be hoped that in the future one might be secured so that plantation granulated sugar could be manufactured.

The sugar store is just adjoining the centrifugals and the necessary scales and bagging equipment has been provided. The water supply comes from two artesian wells, both connected to a deep well pump given by Worthington-Simpson, Ltd.

The boiler has been donated by Babcock & Wilcox Co., Ltd., and is of the water tubular type. It has approximately 1,800 square feet of heating surface, and is equipped with all the necessary appliances, including a safety high and low water alarm. The boiler mountings are the gift of J. Hopkinson & Co., Ltd., and include fire bricks.

The boiler feed pump is of the Weir type and was donated by the G. & J. Weir, Ltd. Between the boiler and the chimney is a Green's fuel economizer, which has been presented by its manufacturers, Messrs. E. Green & Son, Ltd. It is for the purpose of heating the boiler feed water by means of the flue gases. Motor-driven scrapers keep the tubes clean and prevent incrustations of soot and ashes. The economizer can be removed from service by means of two dampers, which deflect the gases through a by-pass directly up the chimney.

Either oil or megass may be used as fuel in the boiler, and the oil equipment has also been presented by Babcock & Wilcox Co., Ltd. It consists of a pump and pre-heater and a patented nozzle for oil burning of their own design.

Practically all of the pumps are motor driven and the electrical equipment consists of eleven motors and control gears, a main dynamo, and a smaller dynamo driven by a Petter engine.

The eleven crude oil motors are gifts of the British Thompson, Houston Co., and are mainly used for driving pumps throughout the factory. The small generator and crude oil engine will be used for lights when there is no steam in the building, also to turn over the crystallizer shafts, week-ends.

Joseph Evans & Sons have given several three-throw pumps for the juice, and other donations include an air compressor, given by the Usine Sainte Madeleine Co., Ltd., a local sugar factory; two reducing valves by David, Auld & Sons, Ltd.; three reducing valves by Sir W. H. Bailey & Co., and an oil separator by Baker, Ltd. Several valves were presented by Glenfield & Kennedy, Ltd., and two auto-dischargers for the two surface condensers were given by Holden & Brooke, Ltd.

The factory is now practically complete, all of the machinery has arrived, with the exception of two tanks, which are en route now. The plan is to start grinding in March and grind two thousand tons of cane, and an attempt will be made to make a profit off the sugar sold.

The designing and plans for the factory were done by Mr. C. T. Berthon, who performed this service as a gift to the college.—*Tropical Agriculture*.

United States Trade in Molasses

According to reports of the Department of Commerce, there have been large demands for molasses during the past year in the manufacture of industrial alcohol. Up to a few years ago most of the industrial alcohol was derived from grain, especially corn. Within recent years, however, the cheap blackstrap of Cuba has come to be the principal raw material for this purpose. Blackstrap is also used to a limited extent in the manufacture of foodstuffs and for reworking into table sirup.

As an index of the increasing importance of the alcohol industry, it is reported that in the fiscal year ended June 30, 1907, there were eight denaturing plants in the United States, which produced 1,780,276 wine gallons. The number rose to 44 plants manufacturing 55,679,597 gallons in 1917, and to 83 plants producing 67,687,295 gallons in 1923.

United States Molasses Production and Importation.

At present about one-third of the molasses consumed in the United States is produced in this country and its island possessions, and about two-thirds of the supply is imported from foreign sources, principally Cuba.

The following table shows the production in the United States, imports from insular possessions during 1921 and 1923, and partial figures for 1924.

UNITED STATES PRODUCTION AND IMPORTATION OF MOLASSES

Items	1921	1923	1924
	<i>Gallons</i>	<i>Gallons</i>	<i>Gallons</i>
United States production:			
Cane.....	26,944,467	17,966,587	¹ 10,807,000
Beet.....	21,850,846	15,578,475	² 19,425,000
Total	48,795,313	33,545,062	30,232,000
Imports from Hawaiian Islands.....	6,789,942	6,722,321	7,742,182
Imports from Porto Rico ³	16,833,247	15,758,405	7,751,545
Net imports from other (foreign) sources.....	72,558,120	180,971,086	170,737,955
Total United States supply.....	144,976,622	236,996,874	216,463,682

¹ For Louisiana only, this being about 95 per cent of the United States total.

² Estimated on basis of ratio of 21 gallons molasses to 1 ton of beet sugar.

³ Figures for 1921 and 1923 include sirup.

Leading Sources of Imported Molasses.

The decrease of 11,401,029 gallons in 1924 shipments of Cuban molasses to the United States practically accounts for the 10,176,958 gallons decline in total 1924 United States imports as compared with 1923, noted in the following table. Prior to 1924 the United States imports of molasses increased from about 33,000,000 gallons in 1913 to 183,000,000 gallons in 1923. While Cuba is the principal source of supply, small quantities are secured from a large number of other sources, principally the West Indies.

The following table shows the imports of molasses into the United States for 1913 and for the five years 1920 to 1924, inclusive.

UNITED STATES IMPORTS OF MOLASSES, 1913 AND 1920-1924						
Countries	1913 Gallons	1920 Gallons	1921 Gallons	1922 Gallons	1923 Gallons	1924 Gallons
Netherlands.....				50	9,463,768	3,341,706
Great Britain....		10,300		2,297	11,054	1,312,392
Canada.....	128,914	958,278	1,274,473	1,152,592	545,706	1,193,067
Barbados.....	1,219,078	963,819	289,565	812,260	452,041	344,488
Jamaica.....		10,606			25,291	84
Trinidad and To- bago.....		20,879		56,214	21,873	1,870,910
Other British West Indies...	269,012	308,824	374,978	110,805	168,969	446,696
Danish West In- dies.....					461,400	
Cuba.....	30,697,527	153,317,590	70,991,970	101,059,577	165,973,104	154,572,075
Dominican Re- public.....	1,610,000	4,455,685	5,143,389	543,600	5,240,188	6,898,060
Mexico.....	1,303	120	332	385		10
Honduras.....		64				1,568,000
British Guiana...						379,028
Dutch Guiana...						4,919
Brazil.....						7,133
Colombia.....						6,935
Venezuela.....		60,813	34,360			
British South Africa.....						1,752,919
All other.....	687	16,675	1,123	1,147,261	1,168,446	948
Total, United States imports	33,926,521	160,123,653	78,110,190	104,885,041	183,531,840	173,699,370
Total, United States exports	2,145,613	4,828,149	5,552,070	7,430,002	2,560,754	2,616,927
Net imports...	31,780,908	155,295,504	72,558,120	97,455,039	180,971,086	171,082,443

Appropriations for Agricultural Instruction

By decree No. 1257 of September 12, 1924, signed by President Zayas, a credit of \$25,000 was assigned to the repair of buildings and the improvement of grounds in the Agricultural Experiment Station and by decree No. 1193 of August 2, 1924, \$15,000 for the purchase of pure stock and \$6,000 for repairs in other agricultural centers.

By presidential decree of September 14, 1924, an assignment of \$32,000 was also made to complete the reconstruction of the six agricultural school buildings in Pinar del Río, Camagüey, Habana, Santa Clara, Oriente and Matanzas. The funds will be provided from the Treasury.—(*President Zayas' Message, November 25, 1924.*)

Cuban Commercial Matters

Cuban Radio Market

Of the Caribbean islands, Cuba offers the best market for radio sets and parts. Approximately 3,000 receiving sets are in use in Habana at present, although the constant interference of the official transmitting station at Moro Castle hinders the reception of desirable broadcast material. The Government is, however, considering the use of line telegraphs to Pinar del Rio, where a transmitting station is being reconstructed. If this is done, the present local interference will be removed and the market should expand materially—especially for high-grade receiving sets capable of picking up United States broadcasting stations.

The active sales in the city of Habana are not, however, characteristic of the entire island. In Matanzas, for instance, it is reported that radio dealers have closed their shops because of lack of sales. In Santiago, also, there is considerable dissatisfaction with radio, it being believed that the large amount of iron ore in the surrounding mountains increases the static and makes satisfactory reception practically impossible. This city has no club or society devoted to wireless and radio experimentation, and although efforts have been made by newspapers and other media to awaken public interest, they have so far been rather unsuccessful.

There is very little, if any, foreign competition in the Cuban market, radio receiving apparatus and accessories being imported exclusively from the United States so far as is known. Very keen competition prevails among the representatives of the various American manufacturers.

Reliable Cuban importers are usually granted 30 to 90 days' credit on their purchases, but it seems advisable that payment on the basis of cash against documents should be insisted upon unless the importers are known to be very reliable. The duty levied on electrical apparatus, radio sets, parts and accessories thereof (according to paragraph 326 of the Cuban import tariff) is 20 per cent ad valorem on imports from the United States.

Cuban Tobacco and Cigar Exports in January

Exports of leaf tobacco from Cuba during the month of January amounted to only 36,165 bales, compared with 39,883 bales in January of last year, according to a report from Consul General C. B. Hurst. Exports of cigars, on the contrary, show an increase, the number exported in January, 1925, being 6,193,245, in comparison with 4,032,200 exported in January of the previous year. The decrease in exports of leaf tobacco may be attributed to the fact that foreign purchasers are buying only for immediate needs, hoping there will be some decline in the prices asked for this commodity.

Cuban Ore Deposits

Cuba ranks third among the countries of the world in iron ore deposits. Only a small portion has even been utilized. It is a great deal in actual tonnage, but still a small portion in comparison to the actual deposits. The Spanish-American Iron Company has been operating its mines in Oriente fifty years.

Mayari iron is one of the best kinds possible to obtain and is used principally for gas engines. Manganese ore exists in immense beds in the vicinity of Manzanillo and the Sun Development Company has been developing that property for the last four years.

Manganese also exists in large quantities in Camagüey Province. Copper is found in many places in paying quantities and it carries samples of gold and silver.

Some gold has been found in the vicinity of Holguin. Gilsonite in large quantities exists in Pinar del Rio province. There is no record of any coal deposits anywhere in Cuba.

Cuban Market for Millinery

According to a report from Consul Briggs, Nuevitas, Cuba offers a very promising market for American millinery. Styles are almost exclusively American and the materials are imported from the United States. Many of the forms are imported and trimmed in Havana. Hats are usually of straw trimmed with silk, seasons having little influence on material or color.

Traffic Receipts of Cuban Railroads

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending February 28.....	£16,010	£13,707
Week ending March 7.....	16,380	16,167
Week ending March 14.....	16,384	16,025
Week ending March 21.....	16,305	14,712

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending February 28.....	£169,531	£119,390
Week ending March 7.....	153,707	142,177
Week ending March 14.....	156,827	144,353
Week ending March 21.....	152,546	142,085

Havana Electric Light & Power Company

	MONTH OF JANUARY	
	1925	1924
Operating revenues.....	\$1,304,165	\$1,208,652
Operating expenses and Taxes.....	680,019	611,788
Net revenues.....	624,146	596,864
Other income.....	42,665	24,897
Total income.....	666,811	621,761
Interest charges.....	89,853	91,866
INCOME, after deducting taxes and interest charges.....	576,958	529,895
Sinking fund requirements.....	27,980	26,697
Balance of income.....	548,978	503,198

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	92	94
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	97	.....
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	.....	95½
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	85½	86
Havana City 1st Mtgs. 6% Bonds.....	100	.....
Havana City 2nd Mtge. 6% Bonds.....	.....	95
Cuba Railroad Preferred Stock.....	86	89
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	87½	87½
Cuba Company 6% Debenture Bonds.....	85	95
Cuba Company 7% Cumulative Preferred Stock.....	85	95
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	92¾	94
Havana Electric Ry. Light & Power Co. Preferred Stock.....	103	104½
Havana Electric Ry. Co. Light & Power Co. Common Stock.....	93¾	94¾
Cuban American Sugar Co. Preferred Stock.....	96	98
Cuban American Sugar Co. Common Stock.....	29½	29¾
Guantanamo Sugar Co. Stock.....	5	5½

The Sugar Industry

Punta Alegre Output

Output of the combined Cuban properties of the Punta Alegre Sugar Company, exclusive of Antilla Sugar Company, was 916,000 bags to March 14 of the current season, according to Treasurer Robert W. Atkins, who has returned from an inspection of the Punta Alegre estates. Production for the entire season is estimated by Mr. Atkins at 1,500,000 bags, so that something over 60 per cent. of the crop had been completed at the middle of March. Production to the same date last year was 691,000 bags.

The sucrose content of the cane ground has been about the same as last season, or slightly lower, the figures of commercial sugar recovered per weight of cane ground running as follows: Baragua, 11.41 per cent. against 12.40 in 1924; Punta Alegre, 11.26 against 11.07; Florida, 10.95 against 10.94, and Trinidad, 10.18 against 11.18.

One large factor in enabling the company to increase its output, as well as to keep down its production costs, said Mr. Atkins, is the fact that none of the mills have been held up "for a single minute" by labor troubles. All labor difficulties were adjusted before the grinding campaign opened.

The Punta Alegre Company has changed the period of its fiscal year so that it now ends September 30 instead of May 30, as formerly. The next annual report will accordingly cover a period of sixteen months, from May 30, 1924, to September 30, 1925.

Cunagua-Jaronu Production

It is reported that production at Centrals Cunagua and Jaronu, the two Cuban estates of the American Sugar Refining Company, amounting to 622,268 bags to February 28, this season, as against 480,040 bags produced at the same date last year. This was more than half the total estimated output of these two mills for the current crop.

Central Cunagua had made 321,509 bags against 263,763 last season, and Central

Jaronu had made 300,759 bags, against 216,277. The average sucrose yield for the two mills was 10.75 per cent., which compares with 10.22 per cent. for the corresponding period last year. Cunagua's average to February 28 was 11.077 per cent., Jaronu's being 10.423.

Menocal to Erect Mill

It is reported that General Mario G. Menocal, former President of Cuba, will construct a new mill in Camagüey province. He has secured a tract of land of about 1,400 caballerias near Santa Cruz del Sur and is negotiating with Jose Ferrer of Cienfuegos for the purchase of Central San Lino, which he contemplates moving to the newly acquired lands in Camagüey. San Lino, which was formerly known as Central Mascota, has been inactive since the crop of 1921-22, but in 1918-19 it reached a production of 201,000 bags. It was acquired by Sr. Ferrer last year for the purpose of utilizing the lands to increase the production of Central Ferrer, with the expectation of selling the San Lino factory. The machinery and apparatus is said to be in very good condition and it is thought that few purchases of new material will be necessary for the Menocal mill.

Antilla Co. Buys Mills

It is reported that Centrals San German and Presidente of Oriente province, Cuba, are about to be merged with the Antilla Sugar Company. While the deal has not been completed in all its details, there appears to be little doubt of its consummation. The merger arrangement, it is believed, is based on the grinding capacity of the mills involved and the land at the disposal of each under existing conditions. It is expected that a more efficient distribution of acreage will result from the consolidation. The San German mill probably will be enlarged to give it a greatly increased capacity.

Natal Crop

The 1924 grinding season has ended at all of the Natal factories and while the final output figures are not yet obtainable, it is evident that the crop will not run much above the lowest estimates made after the break in the season-long drouth, last October. The best expected is that the outturn may amount to 165,000 short tons, whereas earlier a production around 185,000 tons was looked for. Coming after the record 1923 crop, which made 203,000 tons, this is a severe disappointment, but considering the unfavorable season, planters are fairly satisfied that the outcome was no worse.

Consolation is being found in the promise which present conditions hold forth of a better season in 1925. December, at least, provided excellent growing weather, with ample rainfall, and it is expected that the results will be noticeable in larger yields from the coming harvest. Heavy floods have occurred along the Umfolozi river, which for a time was impassable. Planters on the north bank were unable to get their cane across and the Umfolozi mill was obliged to suspend grinding. Several plantations were partially flooded by the overflowing of St. Lucia lake. The damage done, however, was negligible when compared with the hoped-for benefits to the crops.

There are excellent prospects that Natal within the coming year may acquire another sugar factory. Negotiations are on foot looking to the erection of a plant near this place, to be in operation in the 1926 campaign. It is understood that a major part of the capital for the undertaking will be put up by British investors and that local interests will supply the balance, although the plans have not yet taken the form where a definite announcement can be made.

Forestry and Mining

By decree No. 1234 of September 11, 1924, signed by the Cuban President, the budget for the inspection of forests and mines was increased \$10,000.—(*Gaceta Oficial*, September 16, 1924.)

Spain's Beet Sugar Crop

Although the slicing of beets is not yet entirely completed at the Spanish sugar factories, the amount of sugar still to be turned out is of negligible consequence and the campaign is expected to end shortly. Production up to date, however, makes this the largest crop ever turned out by the Spanish sugar industry. The final output will be about 240,000 metric tons in terms of refined.

The largest output in any previous year was in 1920-21, when it amounted to 211,675 tons, refined value. In the remainder of the past twenty-year period the crop has varied from 62,363 tons in 1910-11 to 168,695 tons in 1923-24.

Consumption during the period July-January amounted to 125,058 tons, in which was included 30,000 tons of foreign sugar imported during the past year. At the present rate distribution for the whole year will amount to about 225,000 tons, leaving a surplus to be carried over into the next crop year, as Spanish sugar cannot be exported except at a loss on account of its high cost of production.

During the calendar year 1924 distribution amounted to 217,354 tons, including 30,000 tons imported and 185,970 tons of domestic production, of which 7,583 tons was cane sugar.

While Spain exported small quantities of sugar during and following the war, with a maximum of 6,100 tons in 1917, the soil and climate are not sufficiently favorable to permit profitable exportation at the present level of world prices.

Barbados Has Large Crop

The current season's sugar crop in Barbados is expected to reach 70,000 tons, which is above the average for the island, Consul J. J. C. Watson states in a report from Bridgetown. The report adds that planters and brokers are rather disheartened by the price situation and fear a loss unless prices improve. Three cents a pound is declared to be the lowest figure at which holdings can be marketed without loss.

Sugar Production in Mexico

Though Mexican raw sugar is shut out of the United States by the high tariff, refined white sugar produced in Mexico is of such high quality that it finds a ready sale on the New York market whenever it is offered. This interesting and significant fact is pointed out by the United States Trade Commissioners in reports summarized recently by Mr. Edwin G. Montgomery, Chief of the Foodstuffs Division of the United States Department of Agriculture, remarks *The West India Committee Circular*. The production of sugar in Mexico is, he states, probably one of the oldest industries in that country, although its most rapid development was attained in the years between 1900 and 1910, during which time production rose from 75,000 to 100,000 metric tons. After 1910, owing to the disturbed condition of the country, production declined until the past few years, when acreage under cultivation in sugar cane was greatly increased and the earlier high level in production has been greatly surpassed. This increase over the 1910 level is a significant sign, since the State of Morelos, once the largest sugar-producing State in Mexico (with a production of 50,000 metric tons in 1910), does not enter into present-day production at all. All of the 26 large mills in Morelos were totally destroyed during the revolution.

TOTAL AREA UNDER CULTIVATION

It is estimated that the total area in Mexico now under cultivation in sugarcane is about 95,500 acres. Planting is done from July to October, and the grinding season throughout the sugar districts is from December to May, continuing often into the month of June. The majority of the more important Mexican sugar haciendas are owned by companies or corporations which produce and grind their own cane and buy relatively small quantities from other planters. The "central" system, as it is known in Cuba and certain other sugar-producing countries, does not prevail in Mexico, although near some of the large haciendas there are a few planters known as "colonos," who sell their production to the hacienda mill. Most of the

large sugar properties are owned by foreigners, Spanish and American capital predominating, while the small sugar properties are owned by Mexicans. The two largest sugar-producing States in Mexico are Vera Cruz and Sinaloa. The largest company in Mexico is located at Los Mochis, in the State of Sinaloa, and the second largest is at Potrero, in Vera Cruz. Both these companies are American concerns. About 80 per cent. of the sugar produced in Mexico is sold within the country. Most of the large producers maintain offices or representatives in Mexico City, who sell to brokers, who, in turn, sell to the wholesalers and jobbers. Shipments are made from the mill or from warehouses in various parts of the country to points designated by the representative or by the broker to whom the representative sells.

ONLY ONE MILL PRODUCING REFINED WHITE

Sugar from the Sinaloa mills destined for Mexico City and the central Mexican market must be shipped in bond through the United States from Nogales, Ariz., to El Paso, Texas, and from the latter point to Mexico City and other important markets of the central section. Some of the mills secure advances on their sugar from American banks, but to obtain these it is usually necessary to hold all stocks in bonded warehouses in El Paso. Although Mexico produces more than enough sugar for domestic needs, sugar is imported as well as exported. This is due primarily to price fluctuations in both the domestic and the foreign markets, and to the fact that in some districts in the northern central States near the border it is cheaper to import sugar from the United States than from mills in the southern or western parts of Mexico. It is also true that a limited demand for refined white sugar on the part of the foreign population of the country and certain of the Mexicans is met with sugar imported from the United States.

Only one mill in Mexico produces a completely refined white sugar, and only a few produce a somewhat lower grade known as "plantation white." The greater part of the sugar produced on a commercial scale and entering the export trade is of the

grade known as "muscovado," a coarse, brown sugar polarizing at 96 degrees. This grade finds a ready market in Europe, to which destination the larger part of the exports are shipped, and is marketed to some extent in the United States for industrial purposes. Europe is the largest market for Mexican exports of sugar. These exports are usually shipped to dealers in the United Kingdom for transshipment to Continental ports. On account of the preferential tariff in favor of Cuban sugar in the United States, and owing to the large supply from the non-contiguous territories and the Philippines, Mexican sugar can be sold in the United States only when the market is high. These conditions tend to restrict Mexican shipments to the United States. The refined white sugar produced in Mexico, however, is of high quality and finds a ready sale on the New York market at any time that it is offered.

The Sugar Producers' Chamber of Mexico, an organization comprising about 85 per cent. of the sugar producers in the Republic, has estimated the 1923-24 production of sugar at 170,000 metric tons. Owing to the lower sugar prices in Europe and the United States during the past season, the volume of sugar exportation from Mexico declined.—(*Produce Market Review*.)

New Sugar for Diabetics

Announcement regarding a new sugar for treatment of diabetes, which is substituted for small doses of insulin, was made by Dr. I. M. Rabinovitch, in charge of the metabolism department of the Montreal General Hospital, at a meeting of the Montreal Medico-Chirurgical Society held at the hospital during February. About 200 medical men were present.

Placing before the society the new work done in the treatment of diabetes during the past year, Dr. Rabinovitch said that observations had been made at the Montreal General Hospital on the use of a sugar called dioxycetone. The results so far had been found very encouraging. The diabetics were able to take much more of this sugar than they could of ordinary

sugar, and since they were able to utilize more of it, they could utilize more fat and thus required less insulin. Diabetics requiring 10 to 15 units of insulin a day or less were able to do without it. The sugar was taken by the mouth as ordinary sugar.

Dioxycetone is a normal product of metabolism of ordinary sugar, Dr. Rabinovitch continued, and he proceeded to demonstrate the ease with which it is oxydized. It can be given in cases of emergency directly into the blood, but requires a special process of sterilization. In a normal individual it has a tendency to decrease the amount of sugar in the blood, and in the diabetic who is excreting large doses of sugar this amount may be lessened by its use.

Dioxycetone is very readily prepared and comparatively cheap, Dr. Rabinovitch stated. It is a white crystalline substance with a sweet cooling taste, like ordinary sugar in appearance.

Appropriations for Sugar

The recently ended session of Congress, in the measure (H. R. Bill 10,404), making appropriations for the Department of Agriculture for the year ending June 30, 1926, included the following appropriations for sugar work:

For sugar plant investigations, including studies of diseases and the improvement of sugar beets and sugar beet seed, \$140,695; for the investigation and development of methods for the manufacture of table syrup and sugar and of new methods for the manufacture of sweet syrups by the utilization of new agricultural sources, \$28,000.

Investigational work covering insects affecting sugar cane in the southern states is included in an appropriation of \$255,440, which applies to studies of all insects in the southern states, and investigations of sugar beet insects are covered by another appropriation for insects affecting truck and other similar crops.

These appropriations are exclusive of funds of \$31,000 for sugar cane and \$15,000 for sugar beet work which were separately appropriated as emergency measures.

Philippine Tonnage

In spite of persistent late rains, which have raised seasonal precipitation figures much above the normal average in many sections, it is reported the Philippine mills are making steady progress with the grinding and are taking off a crop which promises to come fully up to the estimated production.

Some extraordinarily good tonnages are being obtained from the fields, but the effect of the rains is evident in the figures of sugar recovery per ton of cane, which have averaged less than in the corresponding weeks of last season, according to run reports of the Philippine Sugar Association up to the end of January. The average this season for mills submitting run reports is 1.73 piculs (241.2 pounds) per metric ton of cane, as against 1.87 piculs (260.75 pounds) in 1924. Notwithstanding that several of the mills started later than last season, the total tonnage bagged to the beginning of February was fully up to that of last season. Owing to the heavier tonnages of cane, the yields per hectare are higher than have ever before been obtained.

Canada's 1924 Sugar Consumption

According to the figures contained in the official review of the Dominion Bureau of Statistics, Canada's consumption of refined sugar in 1924 was 399,149 short tons (356,383 long tons), an increase of 7.25 per cent over 1923. The bureau's statistics give the following data for the two years:

	Tons of 2,000 lbs.	
	1924	1923
Refined stock Jan. 1.....	29,825	36,817
Sugar manufactured.....	428,367	416,171
Refined imports.....	21,463	8,520
Total supply.....	479,655	461,508
Less: Refined exports.....	42,015	59,561
Stock Dec. 31.....	38,491	29,825
Sugar to consumption.	399,149	372,122

On the basis of an estimated population of 9,420,000, the 1924 consumption was equal to 84.7 pounds per person, against 80.4 pounds for an estimated population of 9,260,000 in 1923.

Device to Fight Cane Fires

The engineering department of Central Macareño of the Caribbean Sugar Co. at Manopla, Cuba, has designed a fire-fighting apparatus for use against cane fires, with which very successful results are reported.

The theory of the apparatus is that a small amount of water, introduced under powerful pressure, can do as effective work in extinguishing fires as can a much larger quantity under small pressure. Working on this principle, the apparatus delivers a stream of water at from 500 to 1,000 pounds pressure with a consumption of only ten gallons per minute. This rate can be maintained for two hours with one filling of the water tank of the apparatus, which for mobility is mounted on a truck body.

In the fires with which Central Macareño has had to deal with since the new apparatus was put in service the use of water has been reduced to an insignificant amount, while fires in both *paja* (trash) and standing cane have been promptly and effectively stopped.

U. S. A. Beet Sugar

Production of beet sugar in 1924 is estimated by the U. S. Department of Agriculture at 1,087,000 short tons for the U. S. A., compared with 881,000 short tons a year ago. This comparatively large production is largely accounted for by the high sugar content of the beets, which is 16.82%, compared with 15.34% last year, and by the larger acreage. Offsetting factors are the relatively low yield of beets per acre which, for the United States, was 8.90 tons, compared with 10.66 tons a year ago. The production of beets this year is reported as approximately 7½ million tons, or about 107% of last year's production.

Treasury Report

During the period February 29 to September 30, 1924, the Cuban national debt was reduced \$11,483,800, payment of \$5,104,500 having been made on the foreign and \$6,279,300 on the interior debt, the remaining balance of the foreign debt being \$88,328,500 and of the interior debt \$12,478,200.

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated February 20, 1925. During the period of this review the markets have again been noted for remarkable steadiness, with fluctuations of only small fractions. The particular matter of interest this month has been the reach of the highest price paid this year for Cuban sugars, sales having been made on March 7th at 3 1/16c. c. & f. There has not only been a good buying movement in the United States, but buying by foreign countries, to which we have referred in our previous reports, has also continued, including the United Kingdom, Continent, Far Eastern countries, South American countries and Canada, the latter including British Columbia.

At the time of our last report Cuban sugars were quoted at 2 13/16c. c. & f. and due to the above-mentioned steady buying, prices slowly advanced, by small fractions, until 3 1/16c. c. & f. was paid. Several of our refiners purchased raw Cuban sugars at this latter basis, but afterward there was a disposition on the part of Cuban holders to offer sugars at 3 1/16c. c. & f. more freely than buyers were able to absorb, and since that time the market has been quieter with a somewhat declining tendency, the last quotation at which Cuban sugars were sold to refiners being 2 31/32c. c. & f. During the past few days the market has been chiefly supported by operative interests, and this class of buyers have bought quite largely, including some 25,000 tons of Philippine Island sugars for May to July arrival, for the latter delivery operators paying as high as the equivalent of 3 3/8c. c. & f. for Cubas.

During the earlier part of the period under review the demand for refined sugar increased quite materially and a large business was done, chiefly at the basis of 5.90c., with some smaller amounts at 6.00c., and this helped to advance the raw market to the 3 1/16c. c. & f. basis, to which we referred above. Since that time the demand for refined has slackened materially and is now quite light, which accounts for the lack of interest shown by the refiners in the offerings.

We quote below an article on India, from our *Weekly Statistical Sugar Trade Journal*, which might interest your readers:

"INDIA.—Mail advices from Europe appear to indicate that many of the Sugar Trade on the Continent are not inclined to attribute much importance to the recent large reduction in the Indian crop. They base their arguments on the idea that a reduction in the local Indian production does not have an important effect on Indian imports from other countries. As a matter of interest, we have looked into our records as regards India and a contrary view to the above appears to be quite well proven.

"Going back to 1913-14, a pre-war period, the Indian crop showed a reduction of close to 300,000 tons from the previous crop, and this brought the imports of India that campaign up to the large total of 803,000 tons, practically a record, and as there were not sufficient Java sugars to meet this demand, 140,000 tons of Mauritius sugars were also imported to make this total. The years 1920 and 1921, abnormal as far as Sugar Trade statistics are concerned, showed a wide variation in the imports. It is well remembered in the Trade that in 1920 India was a free seller of Javas, chiefly to this country, rather than a buyer. This accounted for the very small imports into India, the figure being only 236,900 tons in 1920. During 1921 India bought quite largely to replace their depleted stocks owing to the re-sales of the preceding year. During the years 1923 and 1924 the Indian crop showed but little change, hence the imports remained about steady, around 440,000 tons. There is now a reduction of 780,000 tons in the crop of India and the imports into that country are already showing an increase of over 150,000 tons more than last year. The above statistics appear to confirm the opinion that the size of the crop in India has an important bearing on the amount of sugar imported from Java."

On March 9th we had a cable from Java, in which sales were reported of Java sugars from the crop harvesting of which will not take place until April/May, 1926, the

sugars purchased being for shipment during June and July, 1926. These are Java White sugars and were sold at 11 florins, which figures about $3\frac{1}{4}$ c. f.o.b. Java, which gives some idea of prices during 1926, from a foreign viewpoint.

The European Beet crops are practically finished and the outturns of all the countries are very close to the original estimates. There were one or two adjustments in the crops of some countries, but the total estimate of Europe remained unchanged, at 7,175,000 tons. This compares with last year's European Beet crop of 5,057,761 tons.

REFINED.—From the time of our last report up to about the middle of the period under review, the demand for refined steadily improved, and during all this time the general selling price was 5.90c., less 2%. The demand became so heavy that several refiners declined to sell further at 5.90c. and advanced to 6.00c. However, some of the demand at 6.00c. was refused by refiners, many of whom advanced their prices to figures that were too high for buyers to consider. This caused an irregular market in refined sugar, as far as asking prices were concerned, some refiners quoting 6.20c., others 6.10c. and some 6.00c. The Federal, for a time, took some orders at 5.90c., but the general selling price can be considered during the period under review at 6.00c., although, as mentioned previously, refiners are quoting list prices somewhat higher.

The export demand for refined sugar continues very slow and thus far has only averaged 5,000 tons a month. No large quantities are dealt in, the total being made up of moderate shipments to various parts of the world.

The Domestic Beet situation, as far as the East is concerned, continues quiet with most sellers withdrawn from the market, attending to the orders previously placed during the active period of the market. Western Beet manufacturers have been asking 6.10c. seaboard basis, but this price is too high to interest buyers and consequently the demand experienced has been quiet.

New York, N. Y.,

March 23, 1925.



Hauling Cane, Central Reforma.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 20 de febrero de 1925, y durante ese período los mercados han vuelto otra vez a sobresalir por su constancia, con fluctuaciones de pequeñas fracciones solamente. El asunto particular de interés este mes ha sido el haber llegado al precio más alto pagado este año por azúcares de Cuba, habiéndose efectuado ventas el 7 de marzo a 3 1/16c. costo y flete. No solamente se han llevado a cabo buenas compras en los Estados Unidos, sino que han continuado las compras por países extranjeros, como dijimos en revistas anteriores, incluyendo la Gran Bretaña, el Continente europeo, países del lejano Oriente, de Sur América y el Canadá, este último incluyendo la Colombia Británica.

En ocasión de nuestra última revista, los azúcares de Cuba se cotizaban a 2 13/16c. costo y flete, y debido a las compras constantes mencionadas antes, los precios subieron poco a poco en pequeñas fracciones, hasta que se pagó el precio de 3 1/16c. c. y f. Varios de nuestros refinadores compraron azúcares crudos a esta última base, pero después hubo una tendencia por parte de los tenedores de azúcares de Cuba a ofrecer azúcar a 3 1/16c. c. y f. con más frecuencia de lo que los compradores podían absorber, y desde entonces el mercado ha estado más quieto con alguna tendencia a la baja, la última cotización a la cual los azúcares de Cuba se vendieron a los refinadores siendo 2 31/32c. c. y f. Durante estos últimos días el mercado se ha sostenido principalmente por los manipuladores, y esta clase de compradores han comprado en cantidades bastante grandes, incluyendo como 25,000 toneladas de azúcar de las Islas Filipinas para llegar de mayo a julio, los manipuladores pagando por esta última entrega a un precio tan alto como el equivalente de 3 7/8c. costo y flete por azúcar de Cuba.

Durante principios del período bajo revista la demanda por el azúcar refinado aumentó bastante y se efectuaron grandes transacciones, principalmente a la base de 5.90c. con algunas cantidades más pequeñas a 6.00c., y esto ayudó a que subiera el mercado de azúcar crudo a la base de 3 1/16c. costo y flete, a que nos referimos antes. Desde entonces la demanda por el refinado ha disminuido materialmente y ahora es bastante floja, a lo cual es debida la falta de interés mostrado por los refinadores en sus ofertas.

Agregamos a continuación un artículo acerca de la India, tomado de nuestra Revista Semanal sobre la Estadística del Comercio de Azúcar, que podrá interesar a nuestros lectores:

INDIA.—Las noticias recibidas de Europa por correo parecen indicar que muchos comerciantes de azúcar en el continente europeo no se inclinan a dar mucha importancia a la grande rebaja reciente en la cosecha de la India. Basan sus argumentos en la idea de que una rebaja en la producción local de la India no afecta de un modo importante las importaciones de otros países a la India. Como cosa de interés, hemos examinado los informes que tenemos acerca de la India y al parecer está bien probado lo contrario de lo antedicho.

“Retrocediendo al año 1913-14, un período antes de la guerra, la cosecha de azúcar en la India mostró una rebaja de cerca de 300,000 toneladas de la cosecha anterior, y esto hizo que las importaciones de la India aquella estación dieran un total de 803,000 toneladas, verdaderamente una cantidad notable, y como no había suficiente azúcar de Java para hacer frente a esta demanda, también se importaron 140,000 toneladas de azúcar de la Isla Mauricio para completar este total. Los años 1920 y 1921, anormales en lo que se refiere a la estadística del comercio de azúcar, mostró mucha variación en las importaciones. Se recuerda bien en el comercio que en 1920 la India era un buen vendedor de azúcar de Java, principalmente a este país, más bien que un comprador. Esto era la causa de las importaciones tan pequeñas en la India, la cantidad siendo solamente 236,900 toneladas en 1920. Durante 1921 la India compró azúcar en cantidades bastante grandes para reemplazar las existencias mermadas debido

a las reventas del año anterior. Durante los años 1923 y 1924, la cosecha de la India mostró poco cambio, de aquí el que las importaciones permanecieran casi estables, alrededor de 440,000 toneladas. Hay ahora una disminución de 780,000 toneladas en la cosecha de la India y las importaciones en aquel país muestran ya un aumento de más de 150,000 toneladas más que el año pasado. Las estadísticas antedichas parecen confirmar la opinión de que el tamaño de la cosecha en la India influye de una manera muy importante en la cantidad de azúcar importada de Java."

El 9 de marzo recibimos noticias de Java por cable notificando se habían hecho ventas de azúcar de Java de la cosecha cuya recolección no tendrá lugar hasta abril o mayo de 1926, los azúcares comprados para embarcar durante junio y julio de 1926. Estos azúcares eran azúcar blanca de Java y se vendieron a 11 florines, que equivale a unos 3¼c. libre a bordo Java, lo cual da alguna idea de los prices durante 1926, bajo el punto de vista extranjero.

Las cosechas de remolacha europea han terminado prácticamente, y la producción de todos los países son muy cerca de los cálculos primitivos. Hubo uno o dos ajustes en las cosechas de algunos países, pero el cálculo total de Europa permaneció sin cambio a 7,175,000 toneladas. Esto se puede comparar con la cosecha de remolacha europea del año pasado de 5,057,761 toneladas.

Refinado.—Desde nuestra última revista hasta la mitad del período bajo reseña aproximadamente, la demanda por el azúcar refinado aumentó constantemente y durante todo ese tiempo el precio general de venta era 5.90c. menos 2%. La demanda aumentó tanto que varios refinadores rehusaron vender por más tiempo al precio de 5.90c. y subieron a 6.00c. Sin embargo, algunos rehusaron vender a la demanda de 6.00c., muchos de los cuales subieron sus precios a cifras que eran demasiado altas para ser aceptados por los compradores. Esto causó un mercado irregular en azúcar refinado, en lo que concierne a pedir precios, algunos refinadores cotizando 6.20c., otros 6.10c. y algunos 6.00c. La refinería Federal por algún tiempo tomó algunos pedidos a 5.90c., pero el precio general de venta puede ser considerado durante el período bajo reseña en 6.00c., aunque, como mencionamos anteriormente, los refinadores están cotizando precios de lista algo más altos.

La demanda por azúcar refinado para la exportación continúa muy despacio y hasta ahora el promedio ha sido solamente 5,000 toneladas al mes. No se negocian grandes cantidades, el total consistiendo en embarques moderados a varias partes del mundo.

La situación del azúcar de remolacha del país, en lo que concierne al Oriente, continúa quieta con la mayor parte de los vendedores retirados del mercado, atendiendo a los pedidos hechos anteriormente durante el período activo del mercado. Los manufactureros de azúcar de remolacha del Oeste han estado pidiendo 6.10c. bajo la base del litoral marítimo, pero el precio es demasiado alto para interesar a los compradores, y por consiguiente ha habido poca demanda.

Nueva York, marzo 23 de 1925.

Death of Dr. Guilford L. Spencer

News of the sudden death in Cuba, on March 23, of Dr. Guilford Lawson Spencer, chief chemist of the Cuban American Sugar Company since 1906 and for many years recognized as one of the leaders among technical men of the American sugar industry, was received by cablegram March 24 at the Cuban American offices in New York. The news came as a shock, the more so since there had been no intimation that Dr. Spencer had not been in his usual

health since his departure for Cuba at the beginning of the crop season to take up his duties as director of manufacturing operations for the company. The brief information contained in the cablegram was to the effect that Dr. Spencer was seized with an affection of the heart while en route by motor car from Havana to the company's Mercedita estate and died at the town of Guanajay.

Compania Cubana Report

A net income for the year ending December 31 last of \$1,147,577, after deduction of taxes and interest charges, is shown in the annual report of the Compania Cubana, the sugar producing subsidiary of the Cuba Company. This was equivalent, after allowing for preferred dividend payments, to \$21.69 a share on the 40,000 shares of common stock outstanding. In 1923 the company's net income was \$1,989,605, equivalent to \$42.74 a common share. Sugar production in 1924 was the largest in the company's history, amounting to 808,089 bags.

The 1924 earnings raised the company's surplus balance as of December 31 to \$6,117,221, as compared with \$4,969,644 at the end of 1923. During the year the company paid off \$809,000 of its 6 per cent. debentures, leaving \$4,650,000 outstanding. All of these, together with the preferred and common stocks, are owned by the Cuba Company. The income account shows the following:

	1924	1923
Operating profit.....	\$1,854,164	\$2,769,528
Expenses.....	91,575	88,722
Net profits.....	\$1,762,589	\$2,680,806
Other income.....	107,159	137,644
Gross income.....	\$1,869,748	\$2,818,450
Interest, etc.....	118,673	327,939
Interest on debentures	479,103	327,540
Reserve for taxes.....	124,394	173,365
Net income.....	\$1,147,577	\$1,989,605
Previous surplus.....	4,969,644	2,980,039
Surplus.....	\$6,117,221	\$4,969,644

United States Exports of Potatoes to Cuba

Of the exports of potatoes from the United States during 1924, Cuba took 2,256,436 bushels, which was a considerable increase over that country's purchases (1,709,972 bushels) in 1923.

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United Railways of Havana

WESTERN DIVISION

TRAIN SERVICE DAILY

85 P M		83 P M	81 A M	Mixed 87	Single Fare 1st cl.	HAVANA	Return Fare 1st cl.		82 A M	84 P M	86 P M	Mixed 88
6.40	.....	12.09	6.40	.....	.....	Lv... Central Station... Ar	.....	.....	11.37	4.33	8.33	.....
7.28	.....	12.50	7.22	.....	\$1.14	Lv... Rincon... Ar	.....	.....	11.00	3.54	7.55	.....
9.41	.....	1.58	8.35	.....	8.41	Ar... Artemisa... Lv	\$5.00	.....	9.52	2.41	6.43	.....
10.38	.....	3.47	10.31	.....	6.10	Lv... Herradura... Lv	9.00	.....	7.55	12.48	4.50	.....
11.35	.....	4.45	11.26	A M	7.20	Ar... Pinar del Rio... Lv	11.00	.....	6.56	11.50	3.54	P M
P M	4.55	11.36	7.15	7.20	Lv... Pinar del Rio... Ar	11.00	6.46	A M	3.44	8.00
.....	6.37	1.20	12.30	9.32	Ar... Guane... Lv	14.00	5.00	2.00	4.10
.....	P M	P M	P M	A M	P M	P M

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(Revised to April 1, 1924)

T. P. MASON,
General Manager

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T. P. MASON,
General Manager

(Revised to April 1, 1924)

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United Railways of Havana

MAIN DIVISION

Condensed Time Table of Daily Through Trains

7-155 P M	11 P M	Lim. Exp. 1 P M	19 P M	5 P M	3-23 A M	13-23 A M	Miles	HAVANA	4 A M	12 A M	Lim. Exp. 2 A M	20 P M	24-6 P M	24-14 P M	8 P M
11.02	10.35	9.02	4.42	1.42	8.20	6.05	58	Lv Central Station Ar	6.09	6.11	7.27	1.50	6.02	8.06	10.20
1.24	11.05	7.03	3.49	10.12	.....	.....	.....	Ar... Matanzas... Lv	3.51	.....	5.16	11.30	4.14	.....	8.00
A M.	A M.	.....	P M	P M	P M	P M	109	..... Cárdenas.....	12.20	12.20	.....	A M	8.55	1.45	5.35
4.08	4.08	.....	9.45	6.03	12.30	12.30	121	..... Guareiras.....	.....	1.06	.....	7.40	1.30	2.09	3.57
.....	3.12	A M	.....	6.44	1.00	12.24	111	..... Colón.....	1.27	.....	3.06	9.00	2.10	1.50	5.45
4.04	.....	1.14	9.40	6.10	12.23	12.45	179	..... Sagua.....	P M	.....	A M	A M	.....	.....	.....
7.12	.....	.....	P M	9.25	3.25	.....	230	..... Caibarién.....	10.40	.....	.....	10.40	6.45	.....	2.45
11.00	.....	.....	.....	7.10	.....	.....	.....	.....	7.10	.....	.....	.....	.....	.....	11.10
.....	.....	.....	.....	.....	.....	.....	.....	.....	P M	.....	.....	.....	.....	.....	A M
8.15	7.00	.....	.....	.....	5.10	5.10	195	..... Cienfuegos.....	5.35	9.30	.....	.....	9.30	9.30	2.05
A M	A M	.....	.....	P M	P M	.....	180	..... Santa Clara.....	P M	P M	A M	.....	A M	P M	.....
7.30	.....	4.00	9.15	.....	.....	.....	241	..... Sancti Spiritus.....	.....	.....	12.20	.....	11.00	.....	3.00
12.45	.....	8.45	.....	.....	.....	.....	276	..... Ciego de Avila.....	.....	.....	.....	.....	6.00	.....	10.00
P M	.....	.....	A M	.....	.....	.....	340	..... Camagüey.....	.....	.....	P M	.....	.....	.....	A M
2.05	.....	8.40	2.55	.....	.....	.....	520	..... Antilla.....	.....	.....	7.30	.....	5.45	.....	9.15
5.45	.....	11.45	6.00	.....	.....	.....	538	..... Santiago.....	.....	.....	5.10	.....	2.40	.....	6.00
P M	P M	P M	569	Ar... Guantánamo... Lv	A M	P M	A M
.....	10.45	5.30	6.15
.....	9.30	9.15	7.00	3.00
.....	P M	P M	A M	12.45
.....	P M

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Bayamo.....	26.82	Manzanillo.....	28.59
Caibarién.....	13.84	21.00	Matanzas.....	4.16	6.00
Camagüey.....	20.14	30.00	Cumbre.....	12.36
Cárdenas.....	7.05	10.50	Remedios.....	13.53
Ciego de Avila.....	16.83	Sagua.....	10.98	16.50
Cienfuegos.....	11.69	17.00	San Antonio.....	0.65	1.00
Colón.....	7.20	Sancti Spiritus.....	14.55
Guantánamo.....	33.26	Santa Clara.....	11.09
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THE CUBA REVIEW

"ALL ABOUT CUBA"

An Illustrated Monthly Magazine, 67 Wall Street, New York

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ADVERTISING RATES ON APPLICATION

Vol. XXIII

May, 1925

No. 6

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"El Campanario"—Cave in Guantánamo

THE CUBA REVIEW

"ALL ABOUT CUBA"

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VOLUME XXIII

May, 1925

NUMBER 6

Cuban Government Matters

Campaign Organized by the Department of Agriculture Against the "Mosaic" Disease

Owing to the serious damage caused by the mosaic disease to cane in the sugar district, the Cuban Department of Agriculture has appointed several commissions of agricultural experts from the department to localize the infection and study the best means of exterminating the disease. These commissions will investigate the percentage of infected stools in each cane plantation in order to determine to what extent the infection has spread; study the antecedents of both infected and healthy plantations; investigate the theory that the pulgon or aphid, generally conceded to be the insect carrier of the disease, attacks with preference the seedling canes, and to study the life cycle and habits of this insect. The department has also organized means of propaganda on the control of the mosaic disease by a series of lectures on the subject to be delivered in the sugar-cane districts.

Cuban Consulate in China Re-established

The consulate in Shanghai has been re-established, and Dr. Rafael Cerviño y Reylor appointed consul general in that city. The staff of this consulate consists of a vice consul and chancellor besides the consul general.

Literary Competition

The Academy of History, in order to encourage the study of Cuban history, has opened a literary competition on this subject. This competition, which closes August 1, 1926, is opened to foreigners as well as natives, be they residents or not of the Republic. The rules require that the works presented shall be original, unpublished compositions in Spanish. A first and second prize will be awarded, the first prize consisting of a diploma, 300 pesos, and 100 copies of the prize-winning composition published by the academy, the second prize of a diploma and 100 copies of the composition published.

Propaganda and Colonization Project

A bill now before the House of Representatives proposes granting a concession for a term of 30 years to a company for developing means of transportation, encouraging immigration to the Republic, and establishing colonies.

Candidate for Mayor of Havana

It is reported that Colonel Jose Eliseo Cartaya will be a candidate for Mayor of Havana in the election of 1926.

General Gerardo Machado's Visit to the United States

General Gerardo Machado, President-elect of Cuba, visited the United States during April. On his arrival at Washington on April 15th, diplomatic and military honors were accorded him in the government's program of welcome. He was extensively entertained during his sojourn in that city, and also during his visit to New York.

On April 22nd the New York Citizens' Committee tendered General Machado a dinner at the Hotel Astor, which was attended by many prominent citizens. The following address was delivered by him on that occasion:

I am profoundly grateful for the frank and cordial manifestations of sympathy which I have received from the very moment that I arrived on the shores of this unrivaled nation—the greatest and most prosperous Republic which has existed in all periods of the world's history. But my gratitude is strengthened even more by this immense demonstration of the City of New York, which has brought together in this hall so many of the most prominent representatives of its commerce and its banking and of the manufacturing and agricultural industries of the country.

These manifestations are the more gratifying to me inasmuch as they are offered by the great American people, not directly to my person, but to the people of the sister Republic of Cuba, for whose welfare they have ever been solicitous and to whose independence they contributed, shedding generously the blood of their sons, many of them from this very City, which became mingled with that of the Cuban upon the battlefields of Caney, San Juan and Santiago. The ties of common affection and eternal confraternity between both peoples were thus irrevocably sealed. Those bonds had already been woven by the Joint Resolution approved by Congress on the 20th of April, 1898, bearing proof of the spirit of justice and liberty of this great people, which spontaneously left to a small nation, as it does to all peoples, the free determination of their own destiny, in accordance with the doctrine established by the glorious founders of their own nationality in the Declaration of Independence of the United States of America.

I wish to say, gentlemen, before anything else, that my visit to the United States is not simply for pleasure or rest. It has two principal objects: to personally greet, as I have done, the great American people in the person of your Honorable President, Calvin Coolidge; and to become acquainted, as exactly as I can, with the possibilities for intensifying, even more than they are at present, the interchange of our products and the reciprocal advantages to be derived therefrom.

Two countries, whose commerce with each other amounted to \$711,441,000 in 1919 and \$1,310,245,000 in 1920, should feel satisfied at the magnificent outcome of their common efforts. At the same time, they should be zealous guardians of the results which have been obtained, and should endeavor to find the best means of maintaining, for their reciprocal benefit, this brilliant commercial position.

It might be argued that the immense value of the merchandise exchanged in those years was a result of the economic consequences of the World War, but it is nevertheless an indisputable fact that since 1902, the year of the establishment of the Republic of Cuba, the volume of its total commerce with the United States has been constantly on the increase and has grown from a little more than \$74,000,000 at that time, to \$560,000,000 in 1924. This enormous interchange of commodities between two peoples, one of whom has but slightly more than 3,000,000 inhabitants, has been due for the most part to the treaty of commercial reciprocity. A great field still remains of possible mutual benefits, and such among you who have an interest in this subject may find in a careful review of the statistics of both countries details respecting these possibilities. You will pardon me, I know, if I say the facts therein set forth would seem to show that the treaty while advantageous for both peoples, has been more so for the United States than for Cuba. This fact has never produced on the part of the people of Cuba the slightest complaint, but it seems opportune to suggest the idea of arriving at a harmonious adjustment insuring to both

parties new reciprocal advantages, if it were possible to attain them through a friendly agreement.

When the United States declared war against the Central Empires, Cuba followed her example before twenty-four hours had passed, and took this action by the unanimous vote of both Houses of Congress. She was the first nation of Latin America to imitate your example, and did so as a proof of her devotion to the spirit of justice which compelled so grave a resolution, and as a manifestation also of gratitude to the great American people who gave such generous assistance to the Cubans to obtain their independence. During the war, in order to satisfy the needs of the allies, Cuba, without special guarantees, increased her production of sugar with great rapidity until it attained approximately the present output. This effort was realized without the special incentive of profit. Sugar would certainly have reached, without Cuba's over-production, unprecedented prices, even superior to those which came about after peace was signed. Our country entered into an agreement with the allies for delivering its total production of sugar at uniform and reasonable prices during two years. This was Cuba's contribution toward the common efforts and in view of the great volume of merchandise which she ceded, at a price which was not very remunerative if the costs of production at that time are considered, this contribution to the common cause may be estimated at several hundreds of millions of dollars. All the energies of our people during the war were directed to increasing the output of sugar for food and of molasses for the manufacture of explosives. This was the rôle assigned her, but it is necessary to state that in addition thereto, Cuba was at all times ready to send her youth to the battlefields in order to share in the sacrifices of blood, and this offer was officially made by her government. In order to meet the needs of preparing for these war-time efforts, the Cuban Government obtained from the Government of the United States a loan of several millions of dollars, but we should point with satisfaction to the fact that this war debt has been totally paid, Cuba being the first nation to accomplish this.

For the rapid development of her productive industrial capacity, Cuba was compelled to seek the investment of large amounts of capital, many of them American, by means of which we have maintained the production which contributes toward satisfying the needs of the United States. If the prices of sugar now prevailing in the world should continue, Cuba would be able to keep up her present output only under great difficulties and eventually a scarcity of sugar production would come about, which would be harmful to the consumers. But a betterment in the preferential percentage granted to her imports into the United States would permit the industry to become stabilized with evident advantage, both for producers and consumers and to the benefit of business in general. As is natural, this betterment would sustain the purchasing power of Cuba for American food-stuffs and manufactured articles, and new reasonable concessions to those products would increase their present consumption.

Many persons believe that Cuban sugar production may be still further increased. This is an error. Our country has attained almost its maximum production of this crop. Not all the lands in Cuba are suitable for the cultivation of sugar cane with sufficient economic returns. Moreover, among the lands already under cultivation, many of them are in a state of exhaustion for the further growing of cane, and it will be necessary to devote them to other crops. American producers cannot therefore fear an increase, which is impossible, or well nigh so, of Cuba's output, and this fact will contribute to bring about a better interpenetration of interests on all sides.

Besides, the population of this great Republic steadily increases. It is not an exaggeration to say that within twenty-five years, the United States will have near to 150,000,000 inhabitants with an individual per capita consumption equal to the present one. Cuba also, if her economic life suffers no violent disturbance through the fall in price of her principal product, will, in that period of time, increase her present population 100 per cent. She will then be a nation of 6,000,000 inhabitants whose purchasing power for the products of the soil and industry of the United States will have increased correspondingly.

The production of the United States keeps up with the growth of population and even exceeds it. Among agricultural products, the cultivation of fruits in California, Florida,

and other States, shows considerable development, and American preserved fruits are successfully competing in the markets of the world with similar indigenous products, notwithstanding protective duties. In order to sustain this growing supremacy, the fruit producing states need sugar at the lowest possible prices at which it can be supplied with reasonable profit by the sugar industry. In this sense, the United States can find no more advantageous and certain source of sugar supply than Cuba. Our country produces this commodity at a price with which it is difficult to compete under conditions of equality. She has the advantage of relatively low maritime freight rates, and that distances by land within the country are not long, for the island is extremely narrow, and only a short haul is necessary in order to place her products at the ports of shipment. All the circumstances consequently seem to make it advisable to study the betterment of the preferences to the products of both countries.

The Government of Cuba under my administration contemplates the carrying out of great material improvements. The largest sums possible will be devoted to extending the means of communication, and particularly public roads. The building of the central highway will be undertaken, and thereby the principal centers of population and consumption will be placed in ready inter-communication, but this will be done without subjecting the credit of the nation to unjustified and unnecessarily onerous obligations.

The payment of the interests and sinking funds of the public debt will be considered preferred and sacred obligations, which there will be no failure to meet at any time or for any reason, sustained as they are by the credit and good faith of the nation.

As I have said on other occasions, my Government will maintain the most cordial relations with the other nations of the world, and we shall endeavor to increase our commerce with them without the least detriment to that which we have developed with the United States. We wish that our country, which enjoys a privileged position at the cross-roads of the world's commerce, may become a center of distribution for the products of all nations. Inasmuch as during the period of the great colonial empire of Spain, Havana was the meeting point for the fleets which conveyed the wealth of the colonies to the mother country, in modern times, its port, which, with the exception of New York, is the most visited in America, may well become the immense storehouse of the world for the ready distribution of all the products of human activity.

The symbolic key, placed by the nation which discovered the New World on the coat of arms of Cuba to signify that she held the key to the Western hemisphere, is not in the hands of the Cuban people in order that they may capriciously set up a barrier to the fruitful energies of human industry; it is in their hands to open wide the gates and, by their intelligent cooperation to accord to her sister nations of the South coast of the Pacific, as well as to those that border upon the Gulf of Mexico and the Carribean Sea, the greatest facilities for their progress and their commerce. The prosperity and wealth which Cuba so acquires cannot but redound to the benefit of her neighbor to the North.

As Cuba stands in the vanguard of Latin civilization in the Western hemisphere and is united by so many ties of affection and common interests to the United States, she is in a position to become the friendly ground where the two great races which, by the destiny of Providence, share the richest and most fertile hemisphere of the globe, may meet and join hands in perfect harmony.

The recent action of the great American nation in recognizing, by the vote of an overwhelming majority of its Senate, Cuba's sovereignty over the Isle of Pines is a new and evident proof of its purpose to deal justly with its sister nations of this continent, both great and small, in order to maintain good will among them and that the incomparable benefits of peace may be more and more fruitful. I avail myself of the fresh opportunity which is offered to me on this occasion to reiterate our gratitude to the American people. If the endeavors of the Cuban Ambassador in Washington, in accordance with the wishes of the Government and the hopes of the Cuban people, were crowned with success, it was not only because of the benevolent and just sentiment of the members of the Senate, but also because of the rectitude of the very Honorable President, Calvin Coolidge, and of the co-operation of his illustrious Secretary of State, Mr. Charles Evans Hughes, and his eminent successor,

Mr. Frank B. Kellogg. Some persons, taking an exaggerated view, may say that we should not be grateful for what we receive when it is just, but history has taught us until now by repeated examples that when a people are powerful and are not compelled to yield by necessity, they are apt to put that which is for their convenience before that which is just. It is, therefore, inspiring for the weak nations and for humanity, which in the end is the victim of the excesses of force, to see that a nation which possesses power, as you do, voluntarily inclines toward justice.

Cuba, which is almost within sight of the coasts of the United States, but confident of the rectitude of her neighbor, whose tendencies are typified by the personalities of Washington and Lincoln, is both able to and desirous of co-operating with this great nation toward the realization of the great work of this, the "American era." The *E Pluribus Unum* of the United States may find a new and fruitful interpretation in this century when steam and electricity have reduced, and daily shorten, all distances. All the nations of Latin and Anglo-Saxon America, while maintaining their frontiers and their separate international personalities, may combine to develop their wealth and to promote the well being and peace of their respective inhabitants. With guarantees for territorial rights, with the spirit of fraternal justice to settle differences by means of arbitrators, with tranquility at home and with respect for the obligations acquired, the nations of this continent may find in their own territories and in the United States, the material resources for the development of the immense wealth of their lands and their sub-soil. America, our continent, will thus evidence to the rest of the world how it is possible to realize, in a harmonious brotherhood of nations, the high purposes imposed on men by their Creator; to live in peace and to contribute with a common effort toward the general progress.

I am going to close, gentlemen, by offering a respectful homage to the memory of the Americans who gave up their lives to assist Cuba in achieving its independence; to the great President William McKinley; to one of the great heroes of our history who is likewise one of yours, Theodore Roosevelt, the great statesman, brave and gallant, the New Yorker, who has best represented the high qualities of your race. We also remember in affection and gratitude Generals Brooke and Wood, who left behind them, as capable and upright administrators, an example difficult to follow and impossible to surpass; and Mr. Alexis Frye, for whom the teaching profession of Cuba conserves a devotion and a veneration which are imperishable; and still many others who served Cuba and who also honored their own country as the illustrious Ambassador of the United States in Cuba, His Excellency, Major General Enoch H. Crowder. At the same time, I close with a toast for the increasing prosperity of this nation, which is evidenced in such an extraordinary degree in this marvelous city, and for the highest development of the spirit of democracy, of liberty and of justice, on the basis of which this nation was founded and has been sustained by an uninterrupted succession of great men.

Construction of an Electric Railway

According to recent information the plan to connect Guantánamo with the city of Santiago de Cuba by an electric railway will soon be accomplished. To carry out this project a company called the Santiago-Guantánamo Railway Co. will be organized in Habana by United States and Cuban capitalists. It is reported that this company, besides building and managing the railway, will undertake the hydroelectric development of the Yateras River, from which it is estimated that 15,000 horsepower can be developed.

Promotion of Sugar Industry

In order to encourage the better cultivation and improvement of land for sugar planting, a bill has been prepared proposing the establishment of five prizes of \$80,000 each for distribution among the first sugar planters who successfully plant, cultivate, and grind sugar-cane on 20 caballerías of ground (in Cuba a caballería is about 33½ acres) during four consecutive crops. The tracts used for this purpose must be what is known as exhausted land, that is, land on which sugar-cane has been raised for not less than 15 consecutive years.

Havana Correspondence

The month of April has been one of great expectations. The center of interest around which all activities have revolved for some time has been the new President-elect, General Gerardo Machado. The people of Cuba are naturally optimistic and the adherents of all parties—Conservatives, Populares, and Liberals—in spite of political differences, are looking forward to the inauguration of Machado, which will take place on May 20th. Even his political enemies have ceased to predict failure and disappointment. All are hoping for the best and this characteristic of the Cuban people is perhaps fortunate. They are willing to give every man a chance and the majority today are convinced that the new President will make good. He has promised an honest, efficient and economical government, and there is no disposition to throw obstacles in his way.

There were some criticisms in the beginning with reference to the wisdom of his visit to the United States at the present time, but these have ceased, and expressions of approval at the cordial reception given the President-elect of Cuba by the officials and people of the great American Republic are heard on all sides. Beyond this ebullition of hope and friendly feeling the economic atmosphere has been rather depressing, the result of a still further drop in the price of Cuban sugars, May offerings being only a little above 2½ cents per pound with not much prospect of an advance during the present season.

This condition of the market, if it continues, will mean, not only a serious loss to our "colonos" or planters of cane, but it will compel the closing out of many mills located in the western end of the island where the soil is comparatively shallow and the fertility more or less exhausted by continued cropping. Many of these fields probably, with heavy fertilizing, might continue to produce cane, but the price offered for sugar today would not justify the expense.

It is quite possible that in the near future the sugar industry may undergo a form of reorganization whereby those mills located in sections of Cuba in which the essential conditions for success do not exist, or rigid economy is impossible, will have to drop out of the game, leaving the larger and more fortunate mills of Camaguey and Oriente to supply the demand for sugar. General Mario Menocal, who was instrumental in building up the first big mills of the island for the Cuban-American Sugar Co., prophesied this forced reorganization some months ago, and it would now seem that the time for change or liquidation has arrived.

In some respects such a reorganization may prove to be for the best, since it will compel owners of large estates, who in the past decade have devoted all of their energies and abilities to the production of sugar, to enter a new field and to look for a substitute that will insure them a satisfactory return for their invested capital and future holdings. This, in some sections at least, the writer is convinced will be found in the planting of henequen and the production of sisal for the big cordage companies of the United States. Yucatan is practically out of the running, and the fact has been established beyond doubt that Cuba offers a better field for the culture of henequen and the manufacture of sisal than Mexico has ever furnished in the days of peace and prosperity.

Of course, only those lands where thin soil of good quality covers soft limestone strata, or where pebbles of this material are plentiful, can be adapted to henequen growing. But, according to reports, hundreds of thousands of acres in the Republic of Cuba possess these qualifications. If these lands are converted into henequen plantations and properly managed, within the next decade the production of sisal for cordage will rank in importance and become the third great industry of Cuba, if it does not take its place next to sugar. We will then no longer have "all of our eggs in one basket."

The colonos of "Chaparra" and "Delicias" have adjusted their differences with the Administration, and these two mills are again grinding after several weeks of idleness. Since there is an abundance of cane in the neighborhood, it is more than probable that they will continue to grind far into, if not all through, the summer months. Owing to their exceptionally fortunate position in regard to transportation by water, they can much better

afford to make sugar, even when the price is below three cents a pound, than can many other mills in Cuba.

The little "Fajardo" sugar mill has also started up, which gives us a total of 183 mills now in operation. Thus it is that production at a rapid rate is still going on with no indication of falling off in the near future. On the fifteenth of April it was estimated that 3,500,000 tons of sugar had been turned out, which is considerably above the output on the same date last year, and gives us reason to believe that even the high estimate made by the Sugar Club some months ago of 4,700,000 tons will be exceeded before the close of the year.

Holy Week, which began on the 5th and continued until the 11th, was the signal for a decided letting down in the canefields and in the mills, since it is practically impossible to induce a Cuban laborer, or even his associates from Jamaica and Haiti, to work during this period of mingled feast, prayer, and general jollification. This little setback, however, is always expected, and under present circumstances not seriously regretted by the producers of sugar.

The "passive resistance" on the part of railroad men during the past six weeks has also interfered seriously with the moving of freight from one point to another. The threat of a general strike has been held over the heads of sugar and allied industries during the greater part of the winter, but, aside from the mentioned "passive resistance," no serious action has been taken by the strike leaders, and it is now believed that wisdom and common sense throughout the greater part of organized labor will prevail, and that there will be no more strikes this season. The one great staying influence in this matter was the fact that during the last strike thirty-seven agitators were suddenly withdrawn by Government from the field of their activities and deported to the mother country, where the Spanish authorities immediately threw them into jail as deserters from the army.

In connection with the sugar industry may be mentioned the fact that a number of clever men belonging to the scientific staff of "The Tropical Plant Research Foundation" in Washington have organized a systematic study of the mosaic disease which has been threatening our canefields for some years. A field station has been established in Cuba and research work in connection with the mosaic root diseases, insect pests, together with the breeding and testing of disease resistant varieties of sugar cane, and soil fertility problems, will undergo careful study. Co-operating with them, of course, is the Secretary of Agriculture, Gen. Pedro Betancourt, and the Chief of the Experimental Station at Santiago de las Vegas, Dr. Gonzalo Fortun. These men of the Foundation will continue to work in Cuba for a period of five years, supported by the Cuba Sugar Club and the Association of Colonos and Hacendados.

ISLE OF PINES

Reports from the Isle of Pines indicate that the supporters of the twenty-one-year fight against the Hay-Quesada Treaty are gradually becoming reconciled to the final decision of the American Senate and are rapidly recovering from their chagrin. Of course the "die-hards" will never be satisfied with the terms of that treaty, and some of them probably will leave the island. One man, we understand, sold a fine orange grove with his beautiful home, valued at \$50,000, to a neighbor for a thousand dollars in cash, and took the first boat for Florida. But the majority of American residents in that sunny little isle have already dropped the campaign of bitterness and buried the hatchet, girded their loins and gone to work.

We of Cuba sincerely regret that the American Senate did not see fit to extend to those pioneer American settlers of the Isle of Pines the privilege of free entrance for their fruit and vegetables into the United States. Such a concession would have relieved them from the excessive duty that under the present tariff robs the fruit growers of all profit. The Government of Cuba was quite agreeable to the idea, although it is quite probable that the spirit of competitive jealousy said to prevail among the fruit growers of Florida and California would have brought about a vigorous protest.

Let that be as it may, the beautiful groves of the Isle of Pines will still continue to furnish citrus and other fruits to the American markets, and its people will enjoy a climate

not excelled in any other part of the globe north of the Tropic of Cancer. Havana at present furnishes a fine near-by market for all of the oranges that the Isle of Pines can produce. Watermelons, too, have brought an excellent price in this capital throughout the winter, selling on the docks at wholesale from fifty cents to a dollar apiece.

There are some sections of the Isle of Pines where a sandy soil, fairly rich in humus, with water possibly held in suspension by a more or less impermeable sub-soil, produces excellent watermelons, weighing from forty to fifty pounds, with a flavor equal to the best in the State of Georgia. Several thousand melons per week are now being shipped from the dock at Santa Fe to the capital of Cuba, where they bring good prices. There is no doubt that many of the sandy lands of the Isle of Pines, if sufficiently enriched with humus and supplied with fertilizers, will produce splendid fruit and vegetables. In the last analysis in most any country it is largely a question of finding a permanent and profitable market in order to insure success.

PINAR DEL RIO

The continuous drouth of nearly two months, that has prevailed in some sections of Havana and Pinar del Rio, greatly damaged the prospect of the vegetable growers. The American colony of Herradura, however, has had a very prosperous winter, and for some months past has been shipping an average of nine thousand crates of peppers, eggplants, tomatoes, etc., per week to the United States.

The pineapple people, too, are greatly encouraged with the result of new plantings that have been made along the Western Railroad of Cuba, between San Cristobal and the City of Pinar del Rio. The slips or suckers were brought from the old fields in the neighborhood of Artemisa, and on the new lands of southern and western Pinar del Rio they are producing a larger and better flavored pine than any that have been recently sent to northern markets. If the crop could be distributed more evenly throughout the year, or if a suitable canning factory were established near the center of the pineapple district, a profitable market would be found for many pines that otherwise are left in the fields and become a loss to the grower.

The secret of successful pineapple culture depends largely on the size and quality of the fruit sent to market. Good, juicy, choice pines will always find a ready sale at satisfactory prices. The runts have to take their chance, and if too many of them are crowded into New York at one time they are liable to become a drug in the market and a loss to the producer. Over two million crates left Havana for the United States last year. Shipments this season will soon begin but it is rather early to estimate.

CENSUS

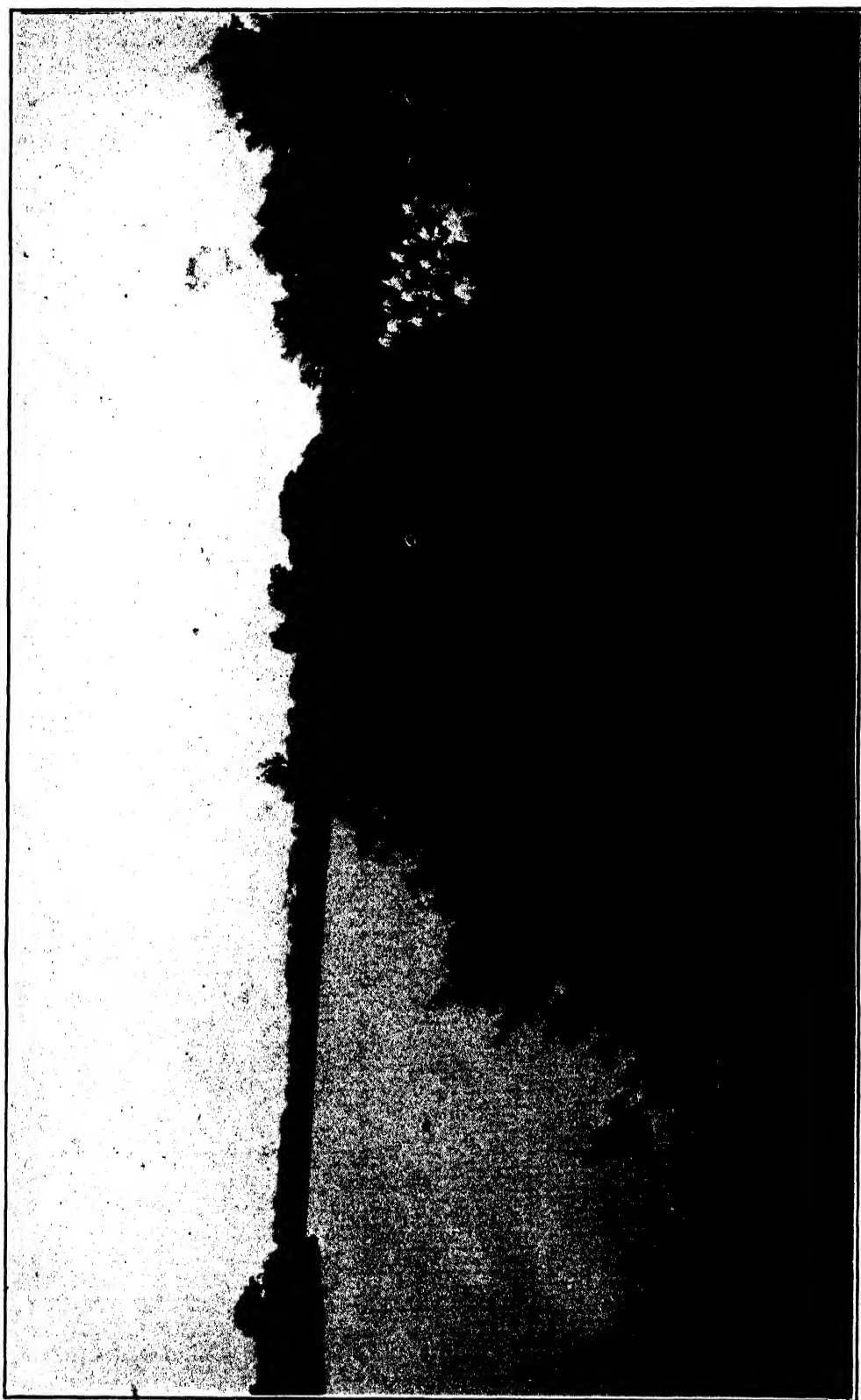
The report just handed in by the National Census Bureau is both interesting and instructive. The figures, compiled by Chief A. V. Previl, show a population for Havana of 538,720 people. The total population of the island on the first day of this year was 3,368,923, of which 2,294,115 were whites; colored, 830,791, or 24.66 per cent.; unclassified, 244,017, or 7.24 per cent. This last includes Americans, English, Spaniards, Chinese, and all foreigners who are permanent residents of the Republic.

New Wards for Children in Havana Hospital

Last February two excellent new wards for children were opened in the Mercedes Hospital of Havana. In the dispensary for out-patients is found equipment for pasteurizing milk, the use of which is offered free to needy mothers of sick children. In the garden adjoining the hospital a playground has been arranged for convalescent children.

Martí Museum

The house in Habana in which the great patriot José Martí was born has been converted into a museum where relics and mementos belonging to him or pertaining to his life have been placed. This museum was formally inaugurated last January, the President of the Republic and many distinguished persons representing the political and social life of the capital attending the ceremony.



Cuban Cattle Ranch

Photo by American Photo Co.

Rare Opportunities for Development in the Mountains of Cuba

By George Reno

In the last analysis the true source of wealth lies in the brain and brawn of man. The great forests of Brazil, the plains of Parana, the plateaux of South Africa, the mines of Mexico, the vast prairies of Canada, the fertile valleys, the tree-covered hills, the unoccupied mountains of Cuba, are all rich in promise, but the wealth is potential only. Enterprise, capital, labor, business ability can alone render that wealth available.

The great need of this Republic today is men and women—home-seekers, immigrants of the right kind, regardless of race, workers, farmers—men who love the soil, the sunshine and the smile of nature when fields are cultivated and stock cared for. Cuba is today a land of promise and opportunity. Our crops are many, our sunshine is sure and our rainfall plentiful. Our fruits and vegetables are wanted in the United States. Our meat, pork, poultry and eggs find a good market at home.

Our sugar, tobacco, and henequen find a ready sale all over the civilized world. We have vacant lands in abundance but we lack people, farmers and families. We have forty-five thousand square miles of territory, 85 per cent. of which is capable of producing food, fuel, textile materials, hardwoods, dyes, minerals, building materials, with only three millions of people. We also produce marbles, clays, cement, asphalt, sand, and all kinds of construction materials. And yet this island, if thoroughly developed, can easily feed twenty million people and sweeten the coffee or tea of all the world.

It is the purpose of this article to call the attention of the outside world to some of the opportunities in Cuba which await only capital, foresight and competent management to develop permanent, profitable industries that will pay dividends just as surely as night follows day. A fair amount of vision, a modicum of courage combined with capital and labor, will bring results satisfactory to the investor and creditable to the corporation.

This is not a land-selling scheme. It is merely an attempt on the part of the writer and of the Government of Cuba to point out sections of this Republic that today are awaiting only the magic wand of money, carefully invested and intelligently managed, to convert potential wealth into practical sources of revenue; legitimate development of enterprises that will pay 10 per cent. on capital invested the first year, and 40 per cent. after the fourth year from beginning of business.

Nearly all of our alluvial soils of depth and fertility—red, black, and mulatto—are at present given over to the production of sugar cane, corn, potatoes, and sweet potatoes, various types of legumes, citrus fruits, pineapples and vegetables. These are grown largely on the level lands, river basins and coastal plains. Three-fourths of the island's area are occupied by the above-mentioned products or are in readiness for planting whenever the forests are cleared and the soil prepared.

The remaining fourth of the island's surface, eleven thousand square miles, approximately seven million acres, is occupied by mountains and plateaux of varying elevations. Nearly all of this elevated surface is covered with heavy forests of hardwoods, many of them valuable. Comparatively small areas with sandy soils have pine timber. Some of these pine forests, although of limited extent, in the eastern part of the island have produced tall, handsome trees. Those of Pinar del Rio, most of which lie south and west of the Viñales Valley, have suffered from fire that has stunted the growth of the timber.

Up to the present time these mountains and hills have been left largely as they were when Columbus discovered Cuba, and yet, with care and cultivation, these mountainous sections offer not only permanent sources of wealth, but ideal homes for settlers who have been raised in the mountainous sections of southern Europe, especially Italy, the Minorcas, Corsica, Sardinia, and Sicily of the Mediterranean. These and immigrants from the Canary Islands would find the mountains of Cuba, with their balmy climate and freedom from frost or cold winds, an agricultural paradise. Nearly all of the Mediterranean sections referred to above are overpopulated by farmers who are compelled to

work long hours of hard, persistent labor in order to earn a sufficient amount to maintain themselves and their families.

The first essentials of civilized life are food and raiment, and the source of these is usually found in the soil. Cuba's greatest contribution in the form of food products today is cane sugar. Next in importance come meat—beef, pork, goats, sheep—poultry and eggs, with honey and wax. After these may be mentioned citrus and other fruits, with nearly all of the vegetables grown in tropical and sub-tropical countries. Tobacco, of course, is an agricultural product greatly in demand throughout most of the world and, as a rule, is profitable.

The increasing demand throughout the world for cane sugar, and the profit which usually accompanies its production, has rendered the price of the deep, rich soils in the level lands somewhat excessive; so much so that only when poor in fertility or exhausted by successive cropping can they be given over for grazing. Fortunately our mountain lands are still open to the pioneer and the homeseeker with prices that are at least reasonable. These sections offer great opportunities to industrious immigrants such as those above mentioned. Opportunities for colonization and development on a large scale give promise of excellent returns if backed with sufficient capital.

The source of immediate income would be from the introduction of portable sawmills, the felling of trees of valuable hardwood—cedar, mahogany, sabicu, acana, dagame, majagua, ocuge, etc. These logs can be converted into boards and, with a small amount of labor along the old mountain trails, can be conveyed to the coast and shipped by schooner to Havana where a ready market offers from \$75 to \$175 per thousand feet.

Where conditions are favorable there is probably no industry connected with agriculture that promises quicker and surer returns than raising pigs in the hardwood, forest-covered mountains of Cuba. The factors essential to success are first, the cheap food furnished by palmiche—nuts produced by the royal palm; second, plenty of fresh water, abundance of shade and efficient transportation. These conditions are found throughout the greater part of the Organos Mountains of Pinar del Rio, and also in other similar regions of the island. We have selected the Organos largely because they are within a radius of one hundred miles of Havana, the principal distributing point for pork products in the Republic of Cuba.

Each royal palm, when it comes to maturity, will furnish approximately two hundred and fifty pounds of palmiche, distributed throughout the year. These nuts, especially if ground into a cake, form one of the best pig feeds known, nearly equal in food value to the corn of the United States. The mountainous districts of Pinar del Rio are practically covered with royal palms, and, if utilized, will furnish food for hundreds of thousands of pigs. Most of this section today is a free range and the cost of food is limited to the salary of the "desmochador," who climbs the trees cuts the bunches and lowers them to the ground. His wages will amount to about \$40 per month.

In the section referred to above, in addition to palmiche, we have many wild fruits of which pigs are fond and that contribute to their health and comfort. Among these are the mango, guayaba, pomarosa, and other native foods found at different seasons of the year. Cheap food, abundant shade, fresh water and free range, with a reasonable amount of care and economy, will render the pork industry in Cuba practically sure of success.

In this island, as in all warm latitudes, sows breed twice a year and bring to maturity an average of five pigs to each litter, which means ultimately an increase of ten pigs for each mother annually. Aside from the rabbit or the guinea pig there is no other animal used for human food that is as prolific as the common pig in Cuba. We have neither cold rains nor frost to contend with and are free from the necessity of building special shelters and barns. A corral well fenced, together with breeding pens, is practically all that is required.

At the present time we are importing approximately \$20,000,000 worth of pork and pork products, including live hogs, every year from the United States, these, in spite of the fact that under intelligent management we can produce either fresh pork or cured meats at a lower price than perhaps in any other part of the world. Strange as it may seem, the

Latin-American people, including those of Cuba, Mexico, and Central America, are the greatest pork consumers in the Western Hemisphere, and there is no better market for these products than the city of Havana.

As before stated, in developing the section above referred to, the essential factor will be the introduction of homeseekers, immigrants, preferably from the Canary Islands, or those Mediterranean peoples who have been brought up as farmers and stock raisers in mountainous countries. These would find life in Cuba healthful, agreeable and profitable. Those who are without means should be assisted, either by private capital or government protection, until they can become self-supporting. The Government of Cuba could well afford either to purchase or lease large tracts and to settle desirable families on the lands, assuming a protective attitude during the first year, or until such time as the head of the family could begin payment for the land which he occupied while endeavoring to build up his home. Nothing would insure the future prosperity of Cuba more certainly than an enterprise of this kind.

Failing Government aid, it is quite possible that if the matter was properly presented to capitalists, either in this country or abroad, colonization companies could be formed to co-operate with homeseekers brought to the island and thus establish permanent industries that inside of the first two years would pay larger and surer dividends than mining or other industries in which capital finds an easy outlet in many countries.

A prospective settler in the Organos Mountains or foothills that border on the Gulf of Mexico, with the assistance of natives who live in the neighborhood, can erect his bohio or mountain home for almost nothing, or at an expense at least which would not exceed \$20. Four native brood sows would cost him possibly \$60 more. These, within the first eighteen months, should give him, approximately, forty shoats, so that when the young sows are old enough to breed, or say at ten months, he would have a herd of twenty-four sows with which to begin the next season. In addition to his pigs, a dozen hens, as many guineas, a few turkeys and a small flock of pigeons, will insure, not only an abundance of meat and eggs throughout the year, but a convenient source of income in a comparatively short time.

A mountain pony also, if a mare, will cost him \$15 or \$20 and prove most useful in looking after his stock and in visiting the village when necessary. A few nannie goats should be added that will cost him when young only five or six dollars and on a free range will furnish plenty of milk for himself and family. The care of the poultry would fall naturally to the wife and children, while the father prepared land, a few acres at a time, for coffee and citrus fruits. The climate of Cuba requires but a small outlay in clothing to keep one comfortable, while surplus chickens, eggs, and young burrows could be advantageously exchanged in the town of Bahia Honda or other near-by village for flour, sugar, salt, and other various essentials.

It is to home builders and industrious agriculturists that Cuba must look for the foundation and prosperity of the Republic in the years to come. Citizens of this type seldom go on strike and may be relied upon for true patriotism and a healthful proletariat from which intelligent and industrious populations will inevitably spring.

While waiting for the increase in livestock, the pioneer in the hills of Cuba should select a suitable location for his coffee and citrus fruit groves. The soils required for coffee, oranges, grape-fruit, lemons, etc., are practically the same, and nothing is better than that found beneath the hardwood forests of the mountains. As soon as the timber is cut and the brush burned a few acres of coffee should be prepared and planted. Young coffee plants can be secured from older groves that once were plentiful in the Organos Mountains.

Coffee was introduced into Cuba by French refugees who fled from the uprising of the negroes in Santo Domingo, at the close of the eighteenth century. Most of these immigrants settled in the hills around Santiago de Cuba and gradually spread from the Province of Oriente into the upland sections of Camaguey, Santa Clara, Havana, and Pinar del Rio. The seed brought by these early settlers was an excellent variety and is still grown in Santo

Domingo and Porto Rico. The industry prospered and the number of cafetales or plantations increased rapidly throughout the mountain lands of the island.

Until the abolition of slavery in 1878 the growing of coffee was one of our chief industries, but with the complete change of the labor system, and the profitable returns that were being derived from sugar, coffee culture, from '78 on, rapidly declined, and thousands of cafetales that once dotted the hills of Cuba were abandoned, or left to the solitudes of the forests where they still bear their fragrant fruit, "the gift of heaven," as the "wise men of the East" declared.

The plant itself is an evergreen shrub with soft gray bark, and dark green, laurel-like leaves. The white petals, star-shaped flowers with yellow centers, are beautiful, and the ripe, red berries growing in clusters close to the stem are not unlike in appearance the marmaduke cherries of the United States. Approximately five hundred trees are planted to the acre in starting a coffee plantation. These, under favorable conditions of fertility, shade and moisture, will begin bearing at the expiration of the third year and produce perhaps half a pound to the tree, or two hundred and fifty pounds to the acre, the value of which, at twenty cents a pound, would be \$50. In a section where the soil is exceptionally rich, a thousand trees may be planted to the acre, but, as a rule in Cuba, in the spaces between the rows of trees quick growing crops are planted, especially the legumes, which are nitrogen gatherers and when plowed under add humus to the soil.

A coffee plantation gets its full growth at approximately ten years of age and continues to produce for ten years more; the amount of the yield per tree varies in accordance with the location, fertility of the soil, vigor of the plant, and the possibility of irrigation during the dry months of winter. This variation in productivity will range from one to five pounds to the tree. An acre of land with an average production of three pounds to the tree, with 500 trees to the acre, will yield 1,500 pounds, which, at three cents per pound, gives us a return of \$300 per acre, with comparatively little expense aside from the picking of the berries.

A certain amount of shade is essential for the successful growing of coffee. The choice of the shade tree depends largely on the fancy of the grower, or on the trees which are available in the neighborhood for that purpose. Coffee is seldom permitted to grow over ten feet in height, so that the crop may be more easily gathered. The berries begin to ripen in about six months from the time of flowering. Each contains two seeds, or coffee beans, the surrounding pulp shriveling up as the fruit matures.

During the gathering of the crop women and children strip the fruit from the branches into baskets, or onto pieces of sheeting laid on the ground, which may be gathered up at the corners and carried to the drying floor, where the berries are spread out and given all the air and sunlight available. Early in the morning they are raked over, and when sufficiently dried are carried to the hulling machine, which removes the outer cover, leaving the green bean of commerce.

Where several coffee plantations are located in the same vicinity hulling machines may be purchased jointly and serve the needs of other growers in the neighborhood. The crop when dried, cleaned and placed in 100-pound sacks, is usually strapped to the back of mountain ponies and thus conveyed to the nearest town or seaport for shipment to Havana. It is common, either in Bahia Honda, Candelaria, or San Christobal, to see long trains of these ponies bringing in coffee from the foothills and mountains of the Organos. It is usually sold directly to the local merchant, who pays for the unpolished beans, as they come from the hands of the grower, from \$20 to \$30 per hundredweight. The price is in accordance with that of the Havana market. The retailers, after roasting the coffee, get from fifty to sixty cents a pound for it.

A coffee planter can always store his crop in Havana warehouses and secure from the bank, if desired, advances equivalent to more than half its value. Cuba is importing today some 30,000,000 pounds of coffee for her annual consumption, and our government is anxious to foster this industry that was once an important factor in the prosperity of the island. A protective duty was imposed by the First Government of Intervention of \$12.15 for each 100 kilos of green coffee, if not imported from Porto Rico, that country paying only \$3.40.

During the first years of the Cuban Republic this duty was increased to \$18 per 100 kilos and later 30 per cent. was added, making a total duty of \$23.40 on every 220 pounds of coffee imported. Porto Rico, however, is favored by a reduction of 20 per cent. of the above amount by our reciprocity treaty which compels that country to pay \$18 per 100 kilos.

In spite of its excellent quality and the demand for native coffee, less than 30 per cent. of the amount consumed is grown in Cuba. The citizens of this Republic are probably the greatest coffee drinkers in the world. The beverage is taken with every meal from early dawn until midnight, and no traveler, stopping at the door of a Cuban country home, is allowed to pass without an invitation to step in and take a small cup of black coffee. Most of our coffee today is imported from Porto Rico, and this, regardless of the fact that nearly all of our mountainsides, foothills and valleys belonging to the limestone ridges of Pinar del Rio; to the great clusters of mountains around Trinidad and Santi Spiritus, in Santa Clara Province; to the Sierra de Cubitas in north Camaguey, and to that mountain chaos which lies tributary to Santiago de Cuba in Oriente and to Guantanamo, are admirably adapted to the cultivation of coffee.

Unfortunately, most of these lands are in large tracts, from ten to fifty thousand acres in extent, and are held by non-resident owners in Spain, who, paying little or no taxes, are reluctant to divide them. It is hoped, however, that with the incoming administration, which will begin on May 20th, our government will succeed in finding a remedy for this problem by encouraging immigration from other semitropical countries with which we may bring into production some of the most charming sections of the Republic.

The culture of coffee is not difficult, and by conforming to a few well-known requirements which the industry demands it can easily be carried on by the wife and children, while the head of the family attends to the harder work of the field, or to cacao in the valleys below. The fragrance that fills the air from a coffee plantation can never be forgotten, and in such location, under favorable conditions, illness can hardly find excuse among people acquainted with the first essentials of correct living.

CACAO

The culture of cacao, from the bean of which chocolate is made, can be carried on very successfully in combination with coffee, since, while coffee does best on those hillsides and mountain slopes where fruit trees and palms furnish a grateful and necessary shade, the cacao is adapted to the rich deep soil found in the valleys and ravines that lie between these slopes. Cacao demands lands that are moist, yet well drained, with all the humus and natural fertilizing elements possible. In other words, in virgin valleys it thrives best.

All the undergrowth and valueless timber are first removed, leaving only royal palms and mangoes, together with sufficient number of other trees to give shade, since cacao suffers, especially during the first two or three years of its growth, from long exposure to the direct rays of the sun. The presence of trees serves also as a windbreak which is essential to both coffee and cacao.

From two to three hundred trees usually occupy each acre. The young plants spring from the carefully selected beans and evaporation is prevented with a mulch of dead leaves. The variety most commonly grown in Cuba is known as *Theobroma*, and begins to bear the fourth year, whence it should continue to yield for half a century.

The yield of cacao beans varies from four to twelve pounds per tree, and were worth, before the war, about \$9 per hundred, which would leave a profit conservatively estimated at \$100 per acre. The price of cacao at present, of course, is much higher.

The pods are gathered from trees in both the spring and autumn. They are heaped in piles in order to hasten fermentation, which lasts some four or five days. When this is complete the beans are separated from the pods, washed in tanks and afterward dried. The process is simple and rapidly done, and, since the labor necessitates no machinery, cacao culture can be carried on by members and servants of the family living on the place.

The culture of cacao, coffee and citrus fruits is a healthful and profitable employment, and especially agreeable for those who are fond of life in the open, and who enjoy living in the mountainous districts that parallel the sea coast of Cuba.

Sugar Cane Varieties

By Professor J. Sydney Dash, B.S.A.

SOME AGRONOMIC CONSIDERATIONS.

It will, I think, be obvious to many who have been following the sugar-cane variety question closely in the last few years, that the time has come when careful stock should be taken of the situation with a view to determining whether the existing practice of turning out varieties, as it were almost mechanically, could not in certain ways be modified and somewhat less wasteful methods adopted, with better results. The number raised annually for destruction is enormous and even those which eventually get a trial are more or less short-lived.

I. *Rearing*.—Given favorable climatic conditions, it is the experience of the writer that where the methods of obtaining fertile seed are well known and carefully followed, no great difficulty, horticulturally, attaches to the actual raising of seedling sugar-canes. What is not generally recognized, however, is the fact that if too tenderly treated in their early existence, while a large number of seedlings can be brought to the field stage, comparatively few will show those desirable qualities of vigor and hardiness when the time arrives for a first selection to be made. The suggestion is not that the plants should be neglected in respect to nourishment and ordinary care—heavy rains and careless watering may do much harm—but rather as regards over-shading, constant handling and transplanting. Indeed, this applies to young plants generally, which are often too delicately reared in the tropics. It is significant, in this connection, that such varieties as Bourbon, the Transparent and Tanna canes, whose parentage is unknown and which must have originated under natural conditions, should have survived over a long period and given a greater length of service, than present day varieties artificially raised. Crystallina (White Transparent) is still the cane which produces the bulk of the Cuban crop and, according to recent reports, Ribbon Transparent is again being requisitioned in parts of Louisiana, while the Tanna canes con-

tinue to do yeoman service in Pacific countries.

II. *Mother Canes*.—Another consideration to which attention might be drawn is whether it would not be advisable to keep definite areas allotted to mother canes, that is canes which have definitely proved themselves to be above the average as parents even though they themselves may not be deemed worthy of cultivation on a field scale. In the early years of seedling production, Harrison attached some importance to this fact and actually reduced his mother canes to four—Bourbon, White Transparent, Red Ribbon and D. 625. In Barbados and Guadeloupe both, where the writer was occupied for several years with sugar-cane variety work, some canes have always given evidence of being more useful mothers than others. To illustrate this point it is remarkable that the Barbados seedling 6,835 is a parent of both B.H. 10 (12) and St. Croix 12 (4)—canes of outstanding merit at the present time—although B. 6,835 itself has never occupied a very high place among the leading varieties. With two such canes to its credit, it is reasonable to suppose that others of at least equal value might be obtained from this variety. It would be interesting to learn the experience of other workers in this connection.

III. *Rooting Habits*.—Dealing more particularly with testing and selection, I would urge in future, the necessity of placing greater emphasis on rooting habits. Hitherto, final selection has largely been made on the performance of the above-ground portion of the cane. Uba provides a striking example of the value of a strong root system in determining the lasting and resistant qualities of a variety. Some attention has been given to this question in India, where suitable methods have been devised for the study of cane roots in different soils, and it is not too much to hope that in the final tests of new varieties their underground parts will receive more consideration than has been given in the past. Associated with this aspect of the problem and its possible

bearing on variety deterioration, is the age which a new seedling should be allowed to reach before cuttings are taken for its first reproduction vegetatively. Here again there is room for careful observation. Doubtless, as soon as our knowledge in these matters is more complete, the more certain will be the results obtained in the work of establishing valuable types, with a greater period of usefulness than those which have been turned out since the discovery of the propagation of sugar-cane by sexual means.

IV. *Costings*.—On the strictly commercial value of a variety, there is room also for considerable economic research. So far, little has been done in this direction. It is difficult for the experiment station, often with limited land facilities, to attempt, and co-operation with the grower would be necessary; I refer to the possibility of determining how varieties compare from the standpoint of sugar production costs. At the present time, varieties are judged largely on the sucrose yield per acre. With high-priced sugar nothing further probably need be considered; with low-priced sugar, the necessity of figuring costs very closely becomes imperative. Obviously, cost accounting studies would have to be made and an accurate, comparative account kept at every stage—in field and factory; for it is clear that some varieties can be more cheaply grown agriculturally than others, while some are more economically handled in the factory, and *vice versa*. It is a question of reconciling the two so that the best financial results may be obtained.

To sum up: an attempt has been made in the foregoing to indicate what would appear to be a few of the more important factors to be considered if progress in sugar-cane variety work is to be maintained and improved. Prominence is being given to bud selection as a means of improvement within a variety, notably in Hawaii. Its difficulties and limitations are well understood; the problem of sorting out true variations from seasonal or environmental fluctuations requires much patient investigation. In any case, the raising of new varieties must always remain of paramount importance. Little reference has been made to the pest and disease aspect,

since it is perhaps the only one—in addition to the chemical and technological side of the industry—which has received the attention it deserves. The Department of Agronomy at the College, now merged into the broader one of Agriculture, is acutely aware of the many problems awaiting solution; it is, however, handicapped at the present time by inadequate land facilities. Nevertheless, about five acres are under sugar-cane and various economic plants and from this beginning it is hoped to rapidly extend variety and other studies as soon as funds are available.—*Tropical Agriculture*.

Canadian Sugar Movement

Output and distribution of refined sugar in Canada was again in greater volume than during the corresponding period last year in the four weeks ending March 28 last, according to the report of the Dominion Bureau of Statistics. Meltings were about 10 per cent larger than in March, 1924, and refined shipments about 13 per cent more. The movement also showed an increase over February of this year. At the end of the period, March 28, raw stocks were about one-half those of the same date last year, but refined stocks were about 5,000 tons larger. Following are the figures, converted into tons of 2,240 pounds:

RAWS			
	1925	1924	
Stock Feb. 28.....	12,383	7,599	
Receipts, month.....	42,945	57,352	
Receipts, year.....	95,937	108,354	
Meltings, month.....	40,716	36,910	
Meltings, year.....	94,471	83,570	
Stock March 28.....	14,613	28,041	
REFINED			
Stock Feb. 28.....	32,927	19,530	
Manufactured, month.....	39,532	33,720	
Manufactured, year.....	95,734	76,268	
Shipped, month.....	40,668	26,173	
Shipped, year.....	98,310	75,820	
Stock March 28.....	31,791	27,077	

Canadian imports during February were 31,024 tons of raw and 556 tons of refined sugar. Of the raw sugar, 10,348 tons came from Cuba, 6,295 tons from Santo Domingo, 5,214 tons from British Guiana, 3,066 tons from Australia, 680 tons from Fiji, 595 tons from Jamaica and Barbadoes, 3523 tons from the United States, and 1,303 tons from Peru.

Cuban Commercial Matters

Cuban Automotive Market

Sales of low-priced cars continue to show a decline. During December, January and February sales aggregating 1,183 units of the three leading low-priced cars were made, as compared with 1,264 units for the previous quarter and 1,710 for the quarter ended September 1, 1924. For the months of January and February, 1925, these sales aggregated 764 units, as compared with 1,065 for the same two months of 1924. Low sugar prices are generally given as the cause of this situation; but since these cars go largely into the "fotingo" (small taxicab) service it is inferable that sales in those directions are being limited more and more to replacement rather than to expansion of service. Although January and February sales were 25 per cent. lower than in 1924, nevertheless, if last year's trend is any indication, increased sales may be anticipated during the next few months. Sales of medium priced cars increased during the quarter ended March 1, and those of high-priced cars remained practically unchanged. A 30 per cent. increase in sales of light trucks has occurred, and a continued strong trade is anticipated in this line. Heavy trucks continue to sell slowly, but some improvement is anticipated since existing stocks have been largely cleared away.—*Assistant Trade Commissioner O. R. Starkbein, Habana.*

Largest Ice Plant in Cuba

La Tropical plant of the Neuva Fabrica de Hielo is located adjacent to the beautiful La Tropical Gardens, on the banks of the Almendares River, Havana, Cuba.

The ice plant is a part of the La Tropical Brewery, which is the largest brewery in Cuba; in fact, one of the largest breweries in the world. The ice plant will be a 600-ton raw water electrically driven installation. The first half of the plant was designed in 1923 and installed in 1924. It consists of:

BOILER PLANT—Two 600 H.P. B. & W. 225-lb. water tube boilers equipped with super-heaters 150 degrees, and oil burning equipment installed. Two additional 600 H.P. boilers will complete the installation, making a total of 2,400 B.H.P.

TURBINE—The electric plant consists of one 1,565 K.V.A. Westinghouse turbo-generator, three 240 K.V.A. General Electric Co. alternators, direct connected to Skinner Unaflo engines. One 2,500 K.V.A. turbine will complete the electrical installation, making a total of 4,785 K.V.A. in generating capacity. These generators are wound for 3 phase, 60 cycle, 220 volts.

SWITCHBOARD—Switchboard is mounted on a gallery, adjacent to turbine, is 55 feet long, and consists of 29 panels, and is one of the most modern industrial control boards, being equipped with all modern equipment. It is divided so that the ice plant load is metered separate from the brewery load, each having respective curve drawing wattmeters and total output wattmeters.

The main generating switches are all remote control, electrically operated. One feature of particular importance is the emergency control circuits so arranged with disconnecting switches that any circuit can be transferred to emergency circuit in the event of trouble on switches or controlling equipment.

ICE PLANT—The first half of the 600-ton plant consists of 2,940 400-pound cans and was installed in 1924; it is an Arctic-Pownall System. The addition will consist of 3,024 cans, making a total of 5,964 400-pound cans.

In the design of the building and installation of the first half, the second floor was poured and was used as a roof. This is now being extended to accommodate the balance of the plant.

The ice storage is partly below the ground, and loading platform is in the rear. The ice storage room is 77 feet wide and 143 feet long; ceiling height, 15 feet. It has a storage capacity of 2,400 tons.

Ice is lowered from the freezing tanks by Gifford-Wood lowerators to storage room and is delivered from the storage room to the ante-room by two Gifford-Wood inclined elevators and a drag chain conveyor.

COMPRESSORS—High speed ammonia compressors are used and each direct connected to synchronous motors.

The present equipment consists of one compound machine, $19\frac{1}{2} \times 13\frac{3}{4} \times 21$, direct

connected to a 575 H.P. synchronous motor; one duplex machine for high pressure suction load, $11\frac{1}{2}$ and $11\frac{1}{2}\times 18$, direct connected to a 350 H.P. synchronous motor, and one compound compressor, 15 and $10\frac{1}{2}\times 16$, direct connected to a 300 H.P. synchronous motor used for the brewery load.

An additional high speed compound machine direct connected to synchronous motor will be installed to complete the refrigerating equipment for the ice making plant.

The first three compressors were furnished by the Ingersoll-Rand Company and are direct connected to General Electric Co. 3-phase, 60 - cycle, 220 - volt synchronous motors.

CONDENSERS—Condensers are of the shell and tube type, manufactured by the Struthers-Wells Company, and consist of 8 shells, each 46-inch diameter, 18 feet high, and each containing an effective cooling surface of 2,000 square feet.

Water for condensing is taken from the Almendares River and pumped over the ammonia condensers and thence passes down through the steam condensers. The steam condenser of the 1,565 K.V.A. unit was furnished by the Westinghouse Electric & Mfg. Co. in connection with their turbine. The second steam condenser will be installed with the 2,500 K.W. unit.

Well water is used for ice making and treated by International Filter Co.'s cold process treating system. It is of ample capacity for the manufacture of 600 tons of ice daily.

Water for boiler feed is supplied by either wells or river, and hot process water-softening apparatus of the Cochrane type was installed.

The installation is notable and the entire 600-ton equipment will be completed this year. On the completion of same a full description together with operating logs will be published.

The company operate in addition the Tivoli Brewery. The officers of the company are: Narciso Gelats, president; Julio Blanco Herrera, inspector general; Enrique J. Montoulieu, chief engineer.

The plant was designed and installed under the supervision of Ophuls & Hill, Inc., New York.—*Refrigerating World*.

Routing Shipments to Cuba

Several instances, where instructions regarding the shipment of merchandise to Cuba were entirely disregarded or where no instructions were given and shipments consequently were routed in such a way as to cause inconvenience, delay, and unnecessary expense, have recently been brought to the attention of the American consul at Cienfuegos. In certain cases the wishes and interests of the consignee were subordinated to the convenience of the shippers or the interests of the forwarders who desired to use their own agencies or representatives in Cuba; in other cases the improper routing seems to have been caused by inexperience of shippers or forwarders.

The advisable procedure in routing shipments is to send them as directly as possible. Facilities exist for direct and regular shipments from the United States to the three principal customs ports in the consular district of Cienfuegos—Cienfuegos, Caibarien, and Sagua la Grande—but not to minor ports and small interior cities. Shipments to the latter destinations should be sent via the Cuban ports that are most convenient to consignees.

As a rule, shipments ofailable merchandise from the United States to the customs ports of Cienfuegos, Caibarien, Sagua la Grande, Trinidad, and Tunas de Zaza are sent by registered mail rather than by express. Besides expediting delivery, this method of shipping has an advantage in that the customs service maintains offices in the post offices, and consignees can therefore clear their shipments without employing customs brokers.

Considerable merchandise from the United States is also received by mail at interior points within the Cienfuegos consular district. Shipments to some sixty cities and towns near Cienfuegos are entered at customs ports and then forwarded to the outlying cities and towns for delivery. Shipments sent by express are generally entered at Habana or some other distant port, often to suit the convenience of particular express companies, and additional charges for customs brokerage and other expenses are invariably assessed.—*Consul Frank Behr, Cienfuegos, Cuba*.

Traffic Receipts of Cuban Railroads

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending March 28.....	£15,834	£14,435
Week ending April 4.....	16,349	15,445
Week ending April 11.....	16,222	14,791
Week ending April 18.....	16,580	13,436

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending March 28.....	£154,480	£154,090
Week ending April 4.....	154,872	152,346
Week ending April 11.....	141,457	137,664
Week ending April 18.....	133,789	118,131

Havana Electric Railway, Light & Power Company

	MONTH OF FEBRUARY		2 MONTHS TO FEBRUARY 28	
	1925	1924	1925	1924
Operating revenues.....	\$1,257,200	\$1,168,541	\$2,561,364	\$2,377,193
Operating expenses and taxes.....	609,553	612,427	1,289,572	1,224,215
Net revenues.....	647,647	556,114	1,271,792	1,152,978
Other income.....	31,491	31,402	74,155	56,299
Total income.....	679,138	587,516	1,345,947	1,209,277
Interest charges.....	89,826	91,677	179,679	183,543
Income, after deducting taxes and interest charges.....	589,312	495,839	1,166,268	1,025,734
Sinking fund requirements.....	27,980	26,693	55,960	53,390
Balance of income.....	561,332	469,146	1,110,308	972,344

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	92	94
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	97 ³ / ₈	99
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	96	97
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	84 ³ / ₄	86
Havana City 1st Mortgage 6% Bonds.....	100	...
Havana City 2d Mortgage 6% Bonds.....	90	...
Cuba Railroad Preferred Stock.....	86	89
Cuba Railroad 1st Mortgage 5% Bonds of 1952.....	86½	87
Cuba Company 6% Debenture Bonds.....	85	95
Cuba Company 7% Cumulative Preferred Stock.....	85	95
Havana Electric Railway Co. Consolidated Mortgage 5% Bonds.....	93¼	94
Havana Electric Railway Light & Power Co. Preferred Stock.....	101	102¼
Havana Electric Railway Light & Power Co. Common Stock.....	91	92½
Cuban American Sugar Co. Preferred Stock.....	96¼	97
Cuban American Sugar Co. Common Stock.....	28	28¾
Guantanamo Sugar Co. Stock.....	45 ⁵ / ₈	5

The Sugar Industry

Scottish Sugar Enterprise in Jamaica

According to the Produce Market Review, a big sugar-producing enterprise recently established in Glasgow, under the title of Jamaica Sugar Estates, Ltd., has, after extensive and careful investigation by British and Cuban experts, decided to establish a factory in Jamaica to manufacture 10,000 tons of raw sugar per season. For this purpose it has concluded the purchase of a number of estates in the Thomas district to the extent of 9,000 acres, and has entrusted the design, construction and erection of the necessary machinery and factory buildings to another Scottish concern (Messrs. Duncan, Stewart & Co., Ltd., Glasgow), states Mr. A. C. Blackall, in the *Planter and Sugar Manufacturer*. The group of lands acquired for the project is situated in the Eastern end of the island, about 40 miles from Kingston. The section is not connected with other parts of the island by public service railways, but good macadam roads built and maintained by the Government give convenient communication to all parts. For the purpose of bringing the cane to the factory, the company are laying down their own narrow-gauge railway, and purchasing the necessary wagons and locomotives. The sugar is shipped from Port Morant Harbour, which is only about five miles from the factory, to which it is connected by railway, and where there is a deep-water quay at which ocean-going steamers can load.

In the early colonial days the lands now acquired by the new company were devoted to sugar-cane growing, the sugar being made under the old time methods by animal, water, wind, and steam power, and the remains of old crushing mills still exist. With the rise of the beet industry on the Continent, however, fostered by bounties on sugar exported to this country, these old and inefficient factories could not survive, and the lands were diverted to the growing of bananas. The United Fruit Co. has extensive properties contiguous to those of the Jamaica Sugar Estates, and agreements have been entered into between the two concerns for the mutual exchange

of cultivation rights over lands adapted to fruit and cane growing respectively. From their own lands, from those of the United Fruit Co. and from farmers and small settlers in the surrounding country, the sugar company will draw its supplies of cane. The cane will be brought from the fields and loading stations to the factory over the narrow-gauge railway in trucks holding 8 to 10 tons each. These trucks are run on to an unloader operated by a hydraulic ram, and the contents dumped on to a conveyor. This conveyor discharges on to another, which, after passing the cane under a set of swiftly-revolving knives to level it out, elevates it and feeds it evenly into the crushing mills.

The first crushing is given by a pair of Krajewski rollers, which cut the cane up into short pieces. From these it falls into another pair of rolls, which further split and crush the cane, extracting a large proportion of the contained juice, which flows down into the collecting gutter. Thereafter this cane is passed through three mills, each with three rollers, water being added to increase the extraction, until, as the crushed cane leaves the last mill, practically all the juice originally in the cane has been expressed. On each of the top rollers of the milling plants patent hydraulic attachments have been fitted. These act as safety devices in the event of anything, such as railway coupling pins, getting into the cane feed, and also permit of definite loading quantities being given to each mill by varying the weights on the independent hydraulic accumulators to which each set is connected. The crushed cane, or bagasse, is elevated and conveyed to boiler-house by scraper carriers and fed by means of hoppers into special furnaces as fuel for the purpose of generating the steam necessary for the factory. The bagasse carrier is so arranged that any excess bagasse is deposited at the end of the boiler-house, where it can be reloaded on to a return loop of the carrier during periods of shortage of fuel or when there is a heavy demand on the boiler plant.

All the arrangements for handling the cane from the freight cars, through the

crushing mill to the boilers, are designed so that practically no hand labor is necessary. The juice from the mills, after being strained, is pumped to an automatic weighing machine, and then passes through tubular heaters where the temperature is raised to about boiling point. From the juice heaters it is delivered to the defecating tanks, where lime is added in the form of lime cream. The addition of the lime has the effect of coagulating the impurities in the juice, some of which fall to the bottom of the defecators, and some rise in the form of a blanket of scum on the top. The clear juice is decanted from the tank, and is ready for further treatment, while the bottoms and scums are sent into another house, in which, after treatment with lime and heat, they are pumped through filter presses to extract any sugar liquor which is contained in them. This filter house is arranged in the Jamaica factory so that railway cars can run directly under the presses to take away the refuse cake through chutes. As it is a very dirty station, it has been designed to be entirely shut off from the remainder of the buildings, and so arranged that the whole place can be washed down periodically. The clear juice extracted by the filters, together with the clear juice which has been decanted from the defecators, is taken to a quadruple evaporator, where it is heated under vacuum by means of steam and reduced to the form of syrup. The syrup is pumped to tanks, from which it is drawn into the vacuum pans, of which there are two, one of the coil type and the other coil and calandria. The evaporator and the two pans each have separate barometric condensers, and separate vacuum pumps of the equalizing slide-valve type and these latter are so arranged that if necessary any two can run the whole apparatus. The injection water for the condensers is delivered by a centrifugal pump into a balance tank, and is taken from the sealing tank and pump by another centrifugal pump through spray nozzles in a cooling pond outside the factory and used over and over again.

From the vacuum pans, the contents, now known as "massecuite," is dropped into large semi-circular tanks—crystallizers—where it is kept slowly stirred for

some time to 'promote the growth of crystals. There are eight of these crystallizers, and they are so arranged that the massecuite can be delivered into any one of them. From the crystallizers the massecuite is discharged into a feeding trough over the centrifugal machines, where the molasses is separated, leaving the crystals of raw sugars. This sugar is conveyed to an elevator which discharges it into an overhead bin, from which it is run into the bags ready for shipment. The crushing mills are driven by a steam engine, but all the conveyors, pumps and other auxiliary machines are driven by three-phase electric motors. The generator house is equipped with two alternators driven by high-speed inverted vertical engines, an oil engine driven alternator for lighting when the main engines are shut down, lighting transformers and switchboards for controlling the various stations.

Shipments of the buildings and machinery have been made from Glasgow progressively as required for erection at the site. The buildings are all of steel with galvanized sheeting for roofs and sides, and careful consideration has been given to the lighting of the plant, both by windows and electric light so as to promote cleanliness and comfort in operation. The factory buildings cover an area of over 40,000 square feet, while the buildings and railway sidings require an area of about 15 acres. Together with the plant, a well-equipped machine shop and locomotive repair shed is being sent from Glasgow, and when completed the factory will form a self-contained unit equipped in the most modern manner to turn out sugar as cheaply as it is possible.

Sugar Distribution, First Quarter 1925

Distribution of sugar in the United States during the first quarter of 1925 was about 7 per cent. larger than in the corresponding period of 1924. The total amounted to approximately 1,450,000 tons, refined value, as compared with 1,352,000 tons during the first three months of 1924.

Stocks on hand at the beginning of the year amounted to 803,550 tons, refined value, including the balance of the 1924-25 crops of Louisiana and beet sugar. Of this

amount 423,250 tons had passed into channels of distribution up to the end of March. Receipts of raw sugar from Cuba have been approximately, 1,100,000 tons, while receipts from Porto Rico, Hawaii and the Philippines have been about 345,000 tons. Full duty paying sugars have added a little under 15,000 tons to the total, making altogether 1,460,000 tons raw value, or about 1,323,000 tons in terms of refined.

Deducting from the above about 35,000 tons of refined exported from the United States during the quarter and 295,000 tons representing refiners' stocks (refined value) leaves roundly 1,450,000 tons as the net amount of distribution.

As compared with April 1, last year, refiners' stocks of raw and refined this year were nearly 100,000 tons smaller, while stocks in the hands of distributors and consumers, though impossible to estimate exactly, probably were lower this year and certainly were no higher. It appears probable, therefore, that distribution and consumption will continue for the immediate future at about the same rate as during the earlier part of the year, remaining somewhat above last season's figure.

While prospective supplies for the remainder of the year are larger than on April 1, 1924, the final outcome of the crops now being harvested is uncertain. The increase in consumption as compared with last season, if maintained, will call for an additional supply of about 350,000 tons to satisfy the requirements of the United States for the year.

New Method of Clarification

Prominent administrators of sugar-cane mills and such technicians recently visited the plant of the Warner Sugar Refining Company, Central Gomez-Mena, where they witnessed the operation of a new process of clarification of cane juice, which has been perfected by Gilchrist & Company, of Chicago and Havana. The apparatus by which the new process, said to be one of the foremost steps in this direction in some years, is carried out, has been installed in the plant and is now in operation.

It is claimed by the perfecters of the process that the quality of juice produced by it is far superior, and as the grade of sugar is dependent upon the quality of cane juice, that the process is of importance to the sugar industry of Cuba.

As patents are pending, details of the process are not yet ready to be made public, but it is stated that the process is based upon modern colloidal chemistry, the control being maintained by "hydrogen-ion" method of determination. The operation of the machine is said to be simple, and the reaction may be observed in a glass tube, where the operator checks his observations with a specially prepared solution paper.

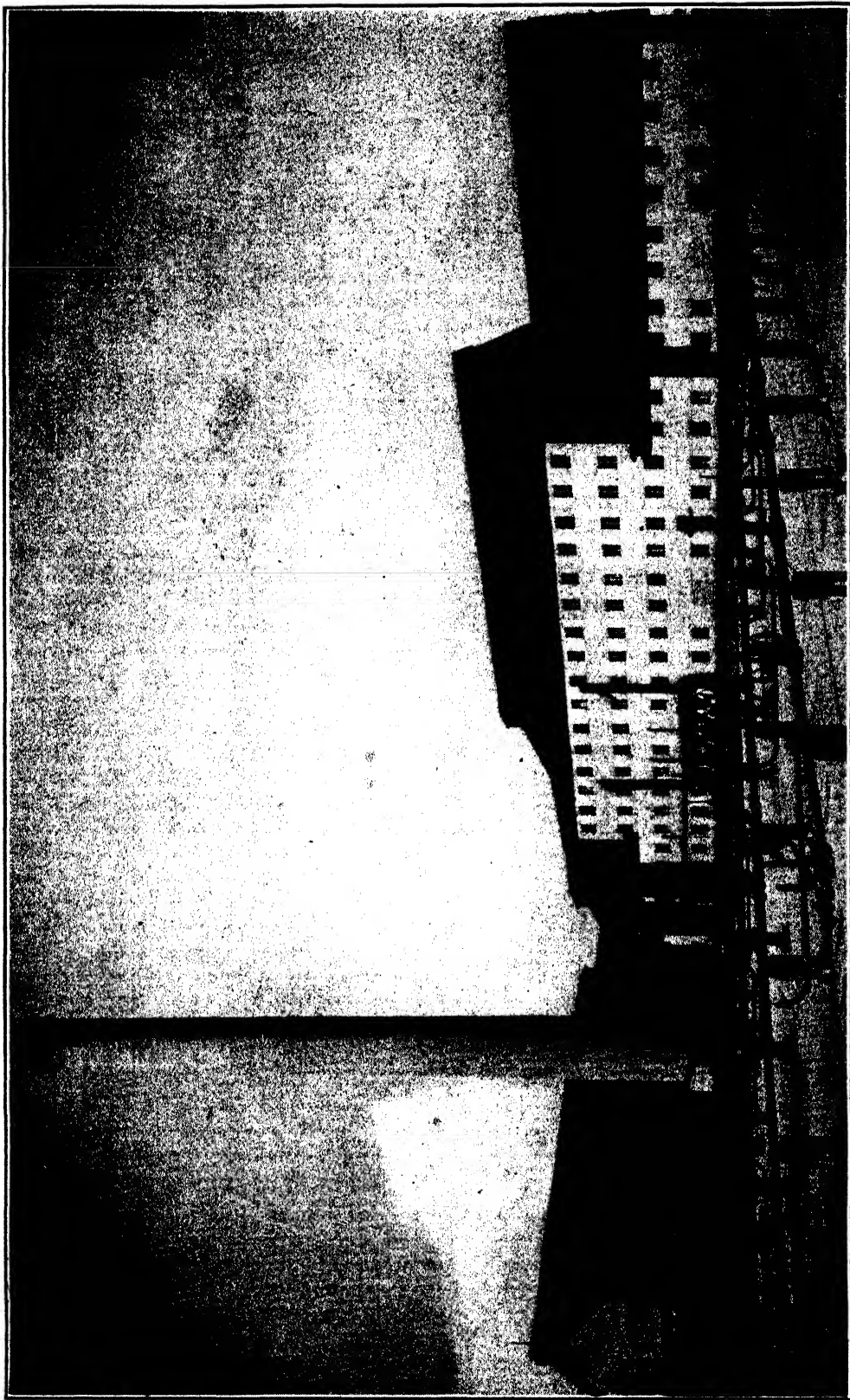
The coagulator is made in capacities of 2,000 tons of juice per twenty-four hours and settler in 2,500 tons or less capacities during a similar period of time, with an abundant reserve for overloads of a temporary nature.

The theory is that in the usual methods of juice clarification it is customary to add lime in concentrated form into the raw juice producing an excess of local alkalinity, and such excess alkalinity continues until the lime is diffused throughout the tank and brought in contact with all the juice.

Lime is introduced into the process only in sufficient quantities to accomplish neutralization of the acidity of the raw juice and to serve as a clarifying agent, thereby perfecting an economy in the use of lime over the present system of from 30 to 50 per cent. In addition, and of great value, is that there being no excess or uncombined lime, all lime introduced seems to be removed in this process, with consequent avoidance of fouling of the heating surfaces of the evaporating appliances, with lime salts. This effects an economy in steam requirements.

Asylum for Mentally Deficient Children

The Department of Public Health plans to establish in Havana an asylum for mentally deficient children, which will include a trade school. The idea is to provide some place where children discharged from the reformatory at Guanajay may be cared for instead of being left again to follow their own free will and fall into bad habits.



Central Vertientes—Camaguey, Cuba

Photo by American Photo Co.

Sugar Crops of the World

As a result of extensive additions to the acreage devoted to cane and beets in many of the leading sugar-growing countries and of generally favorable growing conditions, the increase in the world's crop in 1924-25 was the greatest that ever has been made in any one year in the history of the industry. On the basis of present indications, with the campaign in Cuba and several other important cane-producing countries still uncompleted, the gain over 1923-24, taking the sugar as produced, promises to be roundly 2,800,000 long tons. Reduced to a basis of refined sugar value, the difference is 2,550,000 tons, or an increase of 14 per cent.

Among the various grand divisions of the sugar world, the greatest gain in output in 1924-25 was recorded in Europe, where it amounted to 2,000,000 metric tons or 38.8 per cent.

The Cuban crop is expected to show an increase of 700,000 tons or more over the 1923-24 figure. Since 1913-14 Cuba's output has grown roundly 2,000,000 tons, or nearly 80 per cent. North America as a whole increased its output 14 per cent over 1923-24 and 58 per cent over 1913-14.

In the Far East and Australasia there were increases of 40 per cent in Philippine production, 54 per cent in Australia and 11.6 per cent in Java, as compared with 1923-24. The decline of over 700,000 tons in India's crop reduced the total output of sugar as produced in this quarter of the globe, but the output, measured in terms of refined, was about the same in the two seasons.

In Africa, the 1924-25 crop was slightly smaller than that of the preceding season, owing to the drouth that cut down production in Natal, but the decline was only 15,000 tons. In South America there was a gain of about 30,000 tons.

The accompanying table shows the output by countries for the crop seasons 1924-25 and 1923-24, the figures representing sugar in the form in which it was produced. The figures are stated in tons of 2,240 pounds, except for Europe. For that continent they are given in metric tons of 2,204 pounds. In compiling totals of the world crop, European statistics are converted into long tons. The world total is also given in its equivalent refined value, showing a world supply of 20,835,000 tons in terms of refined.—*Facts About Sugar.*

SUGAR CROPS OF THE WORLD

Tons of 2,240 pounds (except Europe)

EUROPE (metric tons):	1924-25	1923-24
Czechoslovakia.....	1,420,000	1,018,000
Austria.....	75,000	47,000
Hungary.....	200,000	124,000
Germany and Danzig.....	1,601,000	1,156,000
France.....	830,000	496,000
Belgium.....	400,000	300,000
Netherlands.....	322,000	226,000
Denmark.....	141,000	109,000
Sweden.....	135,000	149,000
Italy.....	420,000	347,000
Spain.....	260,000	187,000
Poland.....	490,000	371,000
Russia.....	494,000	419,000
Rumania.....	111,000	82,000
Jugoslavia.....	144,000	45,000
Other countries.....	77,000	52,000
Total Europe.....	7,120,000	5,128,000
Total tons of 2,000 lbs.....	7,832,000	5,640,800
AFRICA:		
Natal.....	146,000	183,000
Mozambique.....	58,000	60,000
Egypt.....	100,000	90,000
Mauritius.....	221,000	202,000
Reunion.....	44,000	50,000
Other countries.....	10,000	9,000
Total Africa.....	579,000	594,000
Total tons of 2,000 lbs.....	648,480	665,300
THE FAR EAST:		
Philippines.....	515,000	368,000
Java.....	1,977,000	1,770,000
Japan and Formosa.....	482,000	450,000
India.....	2,537,000	3,317,000
China.....	350,000	350,000
Australia.....	435,000	282,000
Fiji.....	60,000	35,000
Total Far East.....	6,356,000	6,572,000
Total tons of 2,000 lbs.....	7,118,720	7,360,600
NORTH AMERICA:		
United States—		
Beet Sugar.....	976,800	787,000
La., Tex. and Fla.....	95,000	148,000
Hawaii.....	602,050	634,000
Porto Rico.....	503,150	399,600
Virgin Is.....	7,000	2,200
Total United States.....	2,184,000	1,970,800
Total tons of 2000 lbs.....	2,446,080	2,207,300
Canada (beet).....	36,000	17,600
Cuba.....	4,735,000	4,060,000
Santo Domingo and Haiti.....	295,000	228,000
British West Indies.....	197,000	165,000
French West Indies.....	58,000	44,000
Mexico.....	170,000	168,000
Central America.....	90,000	78,000
Total North America.....	7,765,000	6,731,400
Total tons of 2,000 lbs.....	8,696,800	7,539,200
SOUTH AMERICA:		
Argentina.....	245,000	257,000
Brazil.....	530,000	528,000
Peru.....	310,000	282,000
British Guiana.....	100,000	95,000
Surinam.....	10,000	11,000
Venezuela.....	18,000	18,000
Other countries.....	35,000	27,000
Total South America.....	1,248,000	1,218,000
Total tons of 2,000 lbs.....	1,397,760	1,364,100
Total Western Hemisphere.....	9,013,000	7,949,400
Total tons of 2,000 lbs.....	10,094,560	8,903,300
Total Eastern Hemisphere.....	13,928,000	12,202,400
Total tons of 2,000 lbs.....	15,599,200	13,666,700
World's total (long tons).....	22,941,000	20,151,800
World's total tons of 2,000 lbs.....	25,693,740	22,570,000
Equivalent in refined (long tons).....	20,843,000	18,285,000

Diseases of the Roots of Sugar Cane

Study of Root Diseases Relatively Backward—The Principal Root Diseases Known in Porto Rico

By Melville T. Cook

Plant Pathologist, Insular Experiment Station, Porto Rico

The study of the roots and the root diseases of plants has been very much neglected as compared with the study of other plant organs and diseases. This is partly due to the fact that these studies are likely to prove quite difficult. However, the importance of these problems must not be underestimated. It is the roots that take in the water and various other food materials from the soil and any injury or reduction in the root system must result in a slowing up of growth, if not serious injury or even death to the plant.

Root diseases may be due to a number of causes, such as improper amount of water, an unsatisfactory soil, and fungi which attack the roots. The activity of these fungi is frequently influenced by the amount of water and the character of the soil. Some of the fungi would be of very little importance if it were not for other factors which weaken the host plants and make them susceptible. Therefore, it will be readily seen that the problem of root diseases is a complicated one.

It is the purpose of this paper to give a brief review of our knowledge of the subject in Porto Rico at this time. Johnston and Stevenson have given us a discussion of four species of fungi. Earle and Matz have contributed to our knowledge of the subject. Prof. A. B. Bourne has also made a study of this problem, but the results of his researches are as yet unpublished.

We find many cases in Porto Rico in which the cane is dwarfed or dying. In many of these cases root-infesting fungi are found, but the presence of such a fungus does not necessarily mean that it is the cause of the trouble. The symptoms of these root diseases are usually a dying or dwarfing of the plants, but such canes are likely to be infected with secondary organisms which complicate the problem.

The most common of the root diseases as known at present are:

(1) The "root fungus," *Marasmius saccharii*, which was at one time supposed to

be an important factor. It is common and widely distributed throughout the cane-growing world. It forms small mushroom bodies at the base of the plant. It is most common on rather heavy wet lands and on ratoon canes. It is quite abundant on dead cane, and the evidence in Porto Rico indicates that it is of little or no importance.

(2) The "stellate-crystal fungus," *Himantia stellifera*, is quite abundant throughout Porto Rico, but there are no definite data by which we can determine its importance. It can be readily recognized by the white stellate-crystal-like growth at the base of the plant.

(3) The "granular leaf-sheath fungus," *Odontia saccharicola*, also found at the base of the plant in the form of a white growth. It is supposed to attack the roots, but this has not been demonstrated. It is of very little importance in Porto Rico.

(4) The "root knot" of sugar cane is caused by a very small worm, *Heterodera radicola*, but is of very little importance on sugar cane in Porto Rico.

(5) The "dry top rot" of sugar cane, which is caused by *Plasmodiophora vascularum*, is not a true root disease. The organism is found in the fibrovascular bundles of the basal part of the plant, but it may be that the organism gains entrance through the roots. This disease is sometimes quite severe in Porto Rico, especially on D-109 cane when grown in low land.

(6) *Rhizoctonia* and *Pythium* are two fungi which are known to attack many plants. These fungi have been found attacking the roots of sugar cane in Porto Rico, but there is no very definite information as to their importance. It is probable that they are the causes of heavy losses.

It will be readily seen that our knowledge of the root rot diseases of sugar cane is very indefinite. The nature of these diseases is such that it will require a long period of research in order to gain a satisfactory understanding of them and to determine methods of control.—*Facts About Sugar.*

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated March 23, 1925. The market during this entire period has been under the influence of the extraordinary production being made in Cuba, and as the production increased buyers became more cautious and would only purchase at concessions. This has accounted for the slow decline since the time of our last report up to the present writing, when the market is quoted steady at 2½¢ c. & f. The declining raw market did not encourage buyers of refined sugar and, as refiners have been melting heavily during all this period, their stocks of refined are large, which naturally kept refiners indifferent buyers of raws. At 2½¢ c. & f. the market at first showed some signs of steadiness, but this steadiness was lost on the publication of Messrs. Guma-Mejer's increased estimate of 4,925,000 tons for the 1924-25 Cuban crop.

The United Kingdom and Continent have kept in the market and have followed it downward, and sales to the United Kingdom and Continent and to the Far East, as well as to South American countries and Canada, have had the tendency to keep the market about steady, as these buyers were willing to buy Cubas at prices somewhat better than the c. & f. New York basis. Some of the trade are estimating that sales to countries other than the United States this year will easily reach 1,000,000 tons of sugar, while others are inclined to go even further in their views. The large increase in production of beet root in Europe has been disposed of, to a great extent, in an orderly manner and at no time has there been any pressure on the part of Continental sellers to send sugars to the United Kingdom. Furthermore, all the countries of Europe have increased their consumption quite materially, and this has helped to do away with the excess production in Europe.

General Gerardo Machado, Cuban President-elect, on his visit to New York, has been well entertained by commercial interests in New York as well as by the sugar trade, a luncheon having been tendered him by Mr. Earl D. Babst, president of the American Sugar Refining Company. We have had the pleasure of attending some of these functions.

REFINED.—As mentioned above, the buyers of refined sugar have received no encouragement from the raw market and they have been buying on a limited scale. Last February there was quite an active buying of refined sugar at 5.90c. and 6.00c., but these buyers have been very slow in taking the sugars for which they contracted, and refiners have had to use forceful methods in order to induce buyers to withdraw the balance of these contracts. In some instances they threatened to put fine granulated in warehouse and charge expense of same to the buyers, as well as making them pay the amount of the invoice.

With the new increased estimate of the Cuban crop, the market will have to adjust itself slowly to a new statistical position, as the large figure issued by Messrs. Guma-Mejer, as mentioned above, has rather surprised the trade, as they were not looking for a larger crop than the earlier estimate issued by this concern.

New York, N. Y., April 24, 1925.

Granulated Sugar Direct from the Cane

The process of making standard granulated sugar direct from cane juice is assured. The results from trials made at Central Hershey on a commercial scale have proven satisfactory.

Mr. Milton S. Hershey has demonstrated the possibilities for a new industry in Cuba, or elsewhere, by conducting on a large scale, to a successful conclusion, a process which

has been considered heretofore in the nature of a very doubtful venture.

Mr. Hershey has the assistance of Messrs. Robert Sayre Kent, Inc., of Brooklyn, New York City, in carrying out the details of this interesting problem.

Applications for patents covering this process have been filed.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willet & Gray, de Nueva York.

Nuestra última revista estaba fechada el 23 de marzo de 1925. El mercado durante todo este período ha estado bajo la influencia de la extraordinaria producción que se estaba llevando a cabo en Cuba, y a medida que aumentaba la producción los compradores obraban con más cautela y sólo compraban con concesiones. Esto ha sido la causa de la paulatina baja en los precios desde que escribimos nuestra última revista hasta el presente, en que el precio del mercado se cotiza constante a 2½c. costo y flete. La baja del mercado de azúcar crudo no animó a los compradores de azúcar refinado, y como los refinadores han estado elaborando azúcar en grandes cantidades durante este período, sus existencias de azúcar son grandes, lo cual naturalmente hizo que los refinadores no se tomaran interés en comprar azúcar crudo. A 2½c. costo y flete el mercado al principio mostró alguna constancia, pero esta constancia desapareció al publicar los Sres. Guma-Mejer el cálculo aumentado de 4,925,000 toneladas para la zafra de Cuba de 1924-25.

La Gran Bretaña y el Continente europeo han estado en el mercado y le han seguido en los precios de baja, y las ventas a la Gran Bretaña, al Continente y al lejano Oriente, así como a los países de Sur América y el Canadá han tenido la tendencia de sostener el mercado casi constante, pues estos compradores esuvieron dispuestos a comprar azúcar de Cuba a precios algo mejores que la base de costo y flete Nueva York. Algunos comerciantes de azúcar están calculando que las ventas este año a otros países que no sean los Estados Unidos llegarán fácilmente a 1,000,000 de toneladas de azúcar, mientras que otros se inclinan a ir aun más allá en sus miras. El grande aumento en la producción de azúcar de remolacha en Europa se ha despachado, en gran manera, de un modo regular y en ninguna ocasión los vendedores del Continente se han visto forzados a enviar azúcares a la Gran Bretaña. Y lo que es más, todos los países de Europa han aumentado bastante su consumo, y esto ha ayudado a evitar el exceso de producción en Europa.

El general Gerardo Machado, Presidente electo de Cuba, en su visita a Nueva York, ha sido muy bien acogido por representantes del comercio de Nueva York así como por el comercio del azúcar, habiendo sido invitado a un almuerzo por el Sr. Earl D. Babst, Presidente de la Compañía Americana Refinadora de Azúcar. Hemos tenido el gusto de atender a algunas de dichas funciones.

Refinado.—Como ya mencionamos antes, los compradores de azúcar refinado no han sido animados por el comercio de azúcar crudo y han estado haciendo compras en cantidades limitadas. En febrero próximo pasado se efectuaron bastantes compras de azúcar refinado a 5.90c. y 6.00c., pero estos compradores han ido muy despacio en conseguir los azúcares para los cuales habían hecho contratas, y los refinadores tuvieron que forzarlos para inducir a los compradores a recoger el resto del azúcar contratado. En algunos casos, les amenazaron con almacenar el azúcar fino granulado y hacer pagar esos gastos de almacenaje a dichos compradores, así como hacerles pagar los gastos de la factura.

Con el nuevo aumento en el cálculo de la zafra del azúcar de Cuba, el mercado tendrá que adaptarse poco a poco a la nueva situación estadística, pues las altas cifras expedidas por los Sres. Guma-Mejer, como digimos anteriormente, han sorprendido algo al comercio de azúcar, pues no esperaban mayor zafra que el primer cálculo expedido por dichos señores.

Nueva York, abril 24 de 1925.

Bulgaria's Sugar Crop

The sugar campaign in Bulgaria, which has now been finished, resulted in the production of 39,920 metric tons of white sugar as compared with 27,120 tons in 1923-24. The quantity of beets worked was roundly 400,000 tons against about 240,000 tons the

year before. The average yield was lower in 1924 than the year before, as the area planted increased from 12,000 hectares to 25,200 hectares, or 127 per cent., while the beet tonnage gained only 67 per cent.

"Industrial Type" Spur Gear Speed Transformer

MANUFACTURED BY THE HILL CLUTCH MACHINE & FOUNDRY CO.

The Hill Clutch Machine & Foundry Company, Cleveland, Ohio, have developed the "Industrial Type" Spur Gear Speed Transformer (patent applied for), realizing the urgent need for an efficient and durable speed changing device for such service as is encountered in connection with conveyor drives, in pulp and paper mills, mines, smelters, steel plants, refineries, cement mills, brick plants, and in fact for all general industrial work where speed transformer units are operated under continuous or heavy service conditions; in other words, something substantial to meet the everyday rough usage of mill operation.



The "Industrial Type" Speed Transformer consists of a nest of plain spur gears revolving in oil, changing the revolutions per minute of the input shaft to some desired revolutions per minute of the output shaft. The power transmitted is the same in both shafts. The efficiency is higher than any other form of gearing. The gears all have 20° involute form cut teeth. The short length of these teeth combined with their powerful cross section insures great strength and reliability.

Of great importance is the central housing located in the main frame. With this construction it is possible to offer the trade a gear transformer having both high and low speed shafts supported in double bronze bearings, insuring strength, rigidity and smooth operation. We have also provided for ordinary thrust conditions.

Great accessibility is obtained as the cap and both ends can be quickly removed. The oiling arrangement is unique, being a continuous and thorough splash system lubrication obtained by a metal disc on the high speed shaft which automatically lubricates every gear and bearing in the case. The entire unit is enclosed, is dust proof and leak proof.

Both high and low speed shafts are in identical axial alignment. The action is positive and both shafts revolve in the same direction.

The "Industrial Type" Speed Transformer is made in seven sizes. Each size has a number which bears a fixed relation to the diameter of the low speed shaft. The number also indicates the horsepower the low speed is capable of safely transmitting at 100 R.P.M.

It is the "short cut" from electric motor to machine or from shaft to shaft where speeds are widely different. It eliminates cumbersome speed changing devices, saves power losses, and being a closely coupled unit requires very little space for installation.

Catalogs and bulletins will be mailed upon request.

New Wards Opened in the Mercedes Hospital

Two new wards for children under 11 years of age were opened recently in the Mercedes Hospital of Habana. A dispensary was also opened for out-patients. These improvements are chiefly due to the efforts of Dr. Angel Aballi, who has given generously of his personal funds toward the realization of this work, in which he is deeply interested. Doctor Aballi is, furthermore, promoting the idea that members of society who are in a position to do so should endow the beds in the children's wards, and has initiated the plan himself by placing in trust a sum of money, the interest on which will be sufficient to meet the expenses of supporting one bed.

Central Nuestra Senora del Carmen

It is reported that the Hershey Company has purchased Central Nuestra Senora del Carmen in Havana Province.

New Industrial Crawling Tractor Crane

A locomotive crane is not a tool adapted for use in a few industries. It is a labor-saving device which is far more versatile and which has a much greater field of usefulness than any other machine whose function is handling material. It is not only useful, but it has become practically a necessity on railroads, in shipbuilding plants, in the iron and steel industries, in lumbering operations, in coal yards, on contracting work, in sugar manufacturing, in foundries, on docks and in practically all manufacturing plants.

Crawling tractor cranes have been developed to extend the usefulness of the locomotive crane beyond the limitation of rails and now several manufacturers of material-handling equipment have already entered this field, among them the Industrial Works, Bay City, Michigan, who for the past fifty-two years have been building locomotive cranes and crane equipment.

They have just recently announced a new and greatly improved 10-ton crawling tractor crane. This crawler crane, known as their Type DC, is very similar in outward appearance to the former types of tractor cranes built by that company, but its design embodies a host of new engineering features, such as split gears for propelling, increased speeds, double clutch mechanism, unusually long tractor belts, independent functions, etc., which, it is claimed, make that machine the fastest, simplest, sturdiest and most rugged type yet produced, and the most economical to operate.

The most important of all the new features is the system of split gears by which each tractor belt is separately controlled. Two concentric vertical propelling shafts at the axis of revolution lead two independent but concentric trains of spur and bevel gears, each operating one tractor belt. Each belt is directly controlled by two powerful friction clutches and brakes in the revolving upperworks, which gives absolutely independent, definite and easy control over each belt while propelling. This is an all-gear drive from engine to sprockets, with no chains in the mechanism at all. The Industrial Type DC is said to be the only crawler crane which steers and propels by friction clutches. It is also said to be the only crane which has a friction clutch and band brake for each

tractor belt. These features make maneuvering in close quarters comparatively simple.

All speeds of the motor-operated crane have been increased 25 per cent., which provides ample speed for the fastest possible handling of all materials. This new feature should make for great savings in time and corresponding savings in money.

The double clutch mechanism by which the two slewing band clutches are operated by one lever makes for very simple slewing. The direction of slewing is changed at will by the movement of the slewing double-clutch lever. No reversal of the engine is necessary.

The crawling tractor belts are of ample length to give plenty of stability when lifting over either end, on any kind of ground.

The center distance between the two end sprockets on the DC is ten feet, one of the longest on the market today, giving ample stability and support for a large range of operation.

All functions of this crane are absolutely independent of each other, which means greater certainty of operation. Separate levers actuating each function are conveniently placed on the operator's platform in the revolving upperworks. Different combinations of these independent functions may be utilized at one time to great advantage.

This crane can be equipped to operate with a steam engine, electric motor, gasoline motor or fuel oil engine of the Diesel type to suit any operating conditions known today. It is extremely versatile, operating with clamshell or dragline bucket, electromagnet, hook and block or grapple. It is readily convertible into a shovel or a pile driver. Any equipment that operates on a boom can be applied.

The utmost care has been used to combine the necessary strength with the light weight essential to a tractor crane, and convenience in operation and maintenance have been provided to the highest possible degree. The makers are confident that this new improved crane will continue to supply a demand for a general utility crane of small capacity sturdily built. It has already found a ready market in practically all fields of industry.

Sugar Imports for March

Sugar imports into the United States of 499,809 tons (446,258 long tons) during March brought total imports for the first three months of 1925 up to 1,224,625 tons (1,093,415 long tons). This is only a little below the record figures of the first quarter of last year, when imports were 1,239,837 tons (1,106,997 long tons). Imports during March, last year, were 522,509 tons (466,526 long tons).

The March, 1925, total was made up of 432,978 tons from Cuba, 52,953 tons from the Philippines, and 13,878 tons of full duty paying sugars, of which 7,522 tons came from Java, 3,082 tons from Mexico, and 2,719 tons from Central America.

The three months' total this year comprises 1,109,682 tons of Cubas, 93,171 tons of Philippines, and 21,772 tons of full duty sugars.

March Refined Sugar Exports

Exports of refined sugar during March from the United States were about 50 per cent larger than in February and also 50 per cent larger than in March, 1924, according to the government's figures given out. The March total was 24,029 tons (21,454 long tons), compared with 15,801 tons in February and 16,143 tons (14,413 long tons) in March, last year. Exports were principally to Great Britain, 6,252 tons; Argentina, 7,510; Uruguay, 4,685, and Greece, 1,161.

Total exports of refined for the first three months of 1925 have amounted to 47,733 tons (42,618 long tons), or nearly 20,000 tons more than the figures for the corresponding quarter of 1924, in which exports were 28,105 tons (25,093 long tons).

Brazilian Sugar Stocks

Sugar stocks in Pernambuco on April 24 were 382,600 bags, and Rio de Janeiro 166,900 bags, with little activity in the market.

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United Railways of Havana

MAIN DIVISION

Condensed Time Table of Daily Through Trains

7-155 P M	11 P M	Lim. Exp. 1 P M	19 P M	5 P M	3-23 A M	13-23 A M	Miles	HAVANA	4 A M	12 A M	Lim. Exp. 2 A M	20 P M	24-6 P M	24-14 P M	8 P M
11.02	10.35	9.02	4.42	1.42	8.20	6.05	58	Lv Central Station Ar	6.09	6.11	7.27	1.50	6.02	8.06	10.20
1.24	11.05	7.03	3.49	10.12	.....	.....	58	Ar... Matanzas... Lv	3.51	.....	5.16	11.30	4.14	.....	8.00
A M	A M	.....	P M	P M	P M	P M	109	..... Cárdenas.....	12.20	12.20	.....	A M	8.55	1.45	5.35
.....	3.12	A M	.....	6.44	1.00	12.24	121	..... Guareiras.....	.....	1.06	.....	7.40	1.30	2.09	3.57
4.04	.....	1.14	9.40	6.16	12.23	12.45	111	..... Colón.....	1.27	.....	3.06	A M	A M	1.50	5.45
7.12	.....	.....	P M	9.25	3.25	.....	179	..... Sagua.....	10.40	.....	.....	10.40	.....	.....	2.45
11.00	.....	.....	.....	7.10	.....	.....	230	..... Caibarién.....	7.10	.....	.....	6.45	.....	.....	11.10
.....	.....	.....	.....	.....	.....	.....	.....	.....	P M	.....	.....	.....	.....	.....	A M
8.15	7.00	.....	.....	.....	5.10	5.10	195	..... Cienfuegos.....	5.35	9.30	.....	.....	9.30	9.30	2.05
A M	A M	.....	.....	.....	P M	P M	180	..... Santa Clara.....	P M	P M	A M	.....	A M	P M	.....
7.30	.....	4.00	.....	9.15	.....	.....	241	..... Sancti Spiritus.....	.....	.....	12.20	.....	11.00	.....	3.00
12.45	.....	8.45	.....	.....	.....	.....	276	..... Ciego de Avila.....	.....	.....	P M	.....	6.00	.....	10.00
P M	.....	.....	A M	.....	.....	.....	340	..... Camagüey.....	.....	.....	.....	.....	.....	.....	A M
2.05	.....	8.40	.....	2.55	.....	.....	520	..... Antilla.....	.....	.....	7.30	.....	5.45	.....	9.15
5.45	.....	11.45	.....	6.00	.....	.....	538	..... Santiago.....	.....	.....	5.10	.....	2.40	.....	6.00
P M	.....	P M	P M	.....	.....	.....	569	Ar.. Guantánamo.. Lv	.....	.....	A M	.....	P M	.....	A M
.....	.....	9.30	.....	5.30	.....	.....	.....	.....	.....	.....	6.15	.....	.....	.....	.....
.....	.....	.....	.....	9.15	.....	.....	.....	.....	.....	.....	7.00	.....	3.00	.....	.....
.....	.....	P M	P M	.....	.....	.....	.....	.....	.....	.....	A M	.....	12.45	.....	.....

Sleeping cars on trains 1, 2, 4, 5, 6, 7, 8, 11 and 12.

Trains 11, 12, 13-23 and 24-14 via Carreño.

SLEEPING CAR RATES—UNITED RAILWAYS OF HAVANA

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Sagua.....
Caibarién.....
Santa Clara.....	4.00	3.20	10.00	13.00
Camagüey.....	5.00	4.00	13.00	15.50
Bayamo.....	6.00	5.00	15.00	19.00
Cacocum.....	7.00	6.00	18.00	22.00
Santiago de Cuba.....

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Antilla.....	\$30.32	Isle of Pines.....	\$8.50	\$12.00
Batabanó.....	2.80	\$3.20	Madrugá.....	3.91
Bayamo.....	26.82	Manzanillo.....	28.59
Caibarién.....	13.84	21.00	Matanzas.....	4.16	6.00
Camagüey.....	20.14	30.00	Cumbre.....	12.36	.....
Cárdenas.....	7.05	10.50	Remedios.....	13.53	.....
Ciego de Avila.....	16.53	.....	Sagua.....	10.98	16.50
Cienfuegos.....	11.69	17.00	San Antonio.....	0.65	1.00
Colón.....	7.20	.....	Sancti Spiritus.....	14.55	.....
Guantánamo.....	33.26	Santa Clara.....	11.09
Holguín.....	27.56	Santiago de Cuba.....	31.35	47.00

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T. P. MASON, General Manager

HAVANA, CUBA

(Revised to April 1, 1924)

United Railways of Havana

WESTERN DIVISION

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85 P M		83 P M	81 A M	Mixed 87	Single Fare 1st cl.	HAVANA	Return Fare 1st cl.		82 A M	84 P M	86 P M	Mixed 88
6.40	.....	12.09	6.40	.....	.....	Lv... Central Station... Ar	.....	.....	11.37	4.33	8.33	.....
7.28	.....	12.50	7.22	.....	\$1.14	Lv... Rincon... Ar	.....	.....	11.00	3.54	7.55	.....
8.41	.....	1.56	8.35	.....	3.41	Ar... Artemisa... Lv	\$5.00	.....	9.52	2.41	6.43	.....
10.38	.....	3.47	10.31	.....	6.10	Lv... Herradura... Lv	9.00	.....	7.55	12.48	4.50	.....
11.35	.....	4.45	11.28	A M	7.20	Ar... Pinar del Rio... Lv	11.00	.....	6.56	11.50	3.54	P M
P M	4.55	11.36	7.15	7.20	Lv... Pinar del Rio... Ar	11.00	6.46	A M	3.44	8.00
.....	6.37	1.20	12.30	9.32	Ar... Guane... Lv	14.00	5.00	2.00	4.10
		P M	P M	P M					A M		P M	P M

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Arroyo Naranjo.....	25 cts.	Santiago de las Vegas.....	55 cts.
Calabazar.....	30 cts.	Rincón.....	65 cts.

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(Revised to April 1, 1924)

T. P. MASON,
General Manager

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"ALL ABOUT CUBA"

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MUNSON STEAMSHIP LINE, Publishers SUBSCRIPTION

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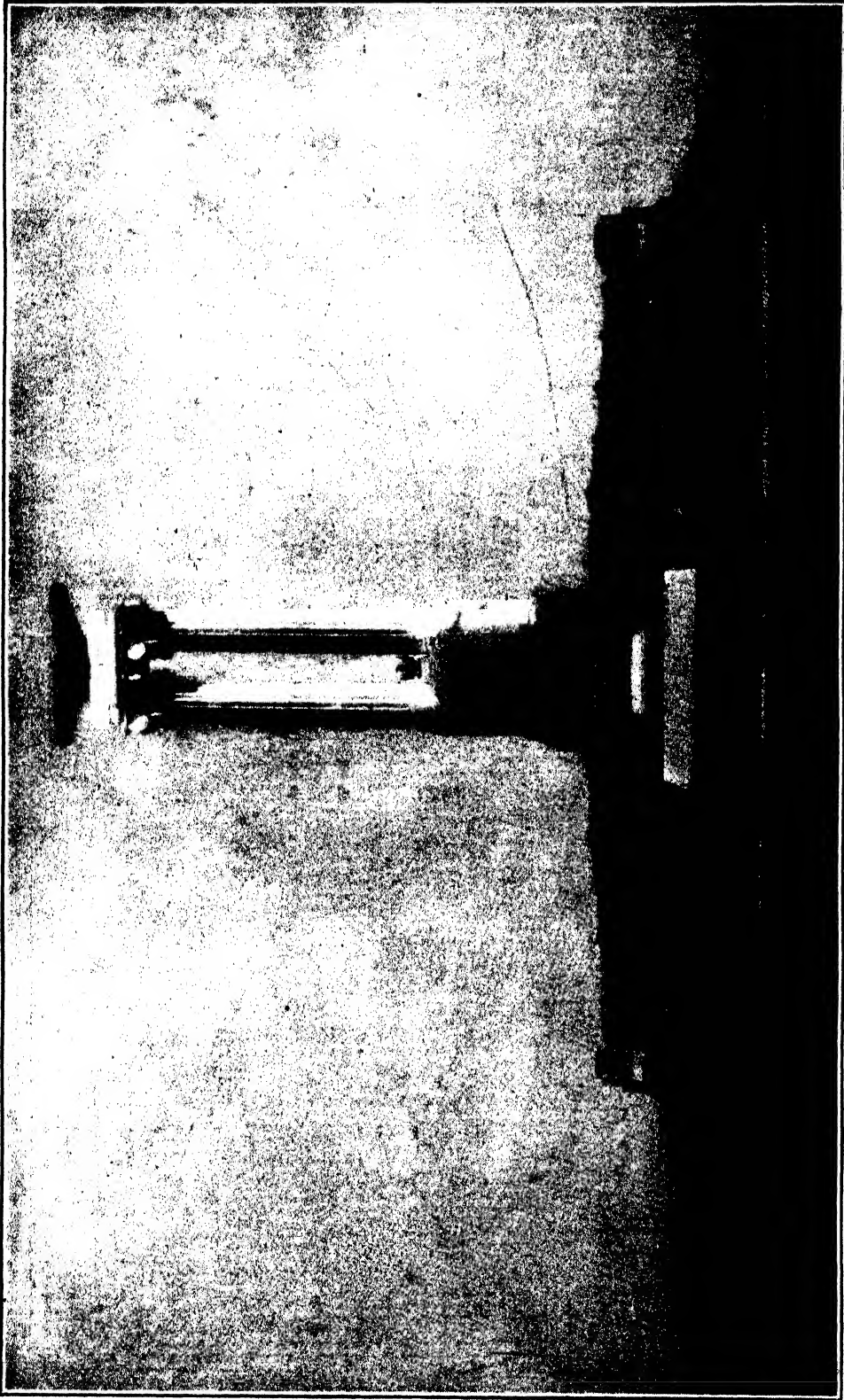
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The Maine Monument—View Facing the Malecon.

THE CUBA REVIEW

"ALL ABOUT CUBA"

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VOLUME XXIII

June, 1925

NUMBER 7

Cuban Government Matters

Cuban National Debt Reduced

According to the report of the President to the Cuban Congress, the Cuban national debt has been reduced in amount by \$1,245,800 in the period from September 30, 1924, to February 28, 1925, the resulting debt on the latter date being \$99,580,400. In the same message, the stock of money in the Republic during the year 1924 was reported as \$390,479,348, distributed as follows: Gold, \$37,104,765; silver, \$12,367,500; nickel, \$1,894,051; notes, \$339,113,032. The governmental revenues for the month of February available for application to the national budget amounted to \$7,092,902, in which figure is not included the sum of over \$250,000 collected for the account of special funds. In order to compare the above named revenues with those for January it is necessary to subtract the portion derived from the gross sales tax, since quarterly collections under the latter head swell the January total. Exclusive of the sales tax, the February revenues total, \$7,066,728, a decrease of practically 10 per cent from the revenues for January, as well as a decrease from the revenues collected in February, 1924. Notwithstanding this decrease, the February collections exceed by more than \$1,000,000 the average monthly collections estimated in the annual budget.

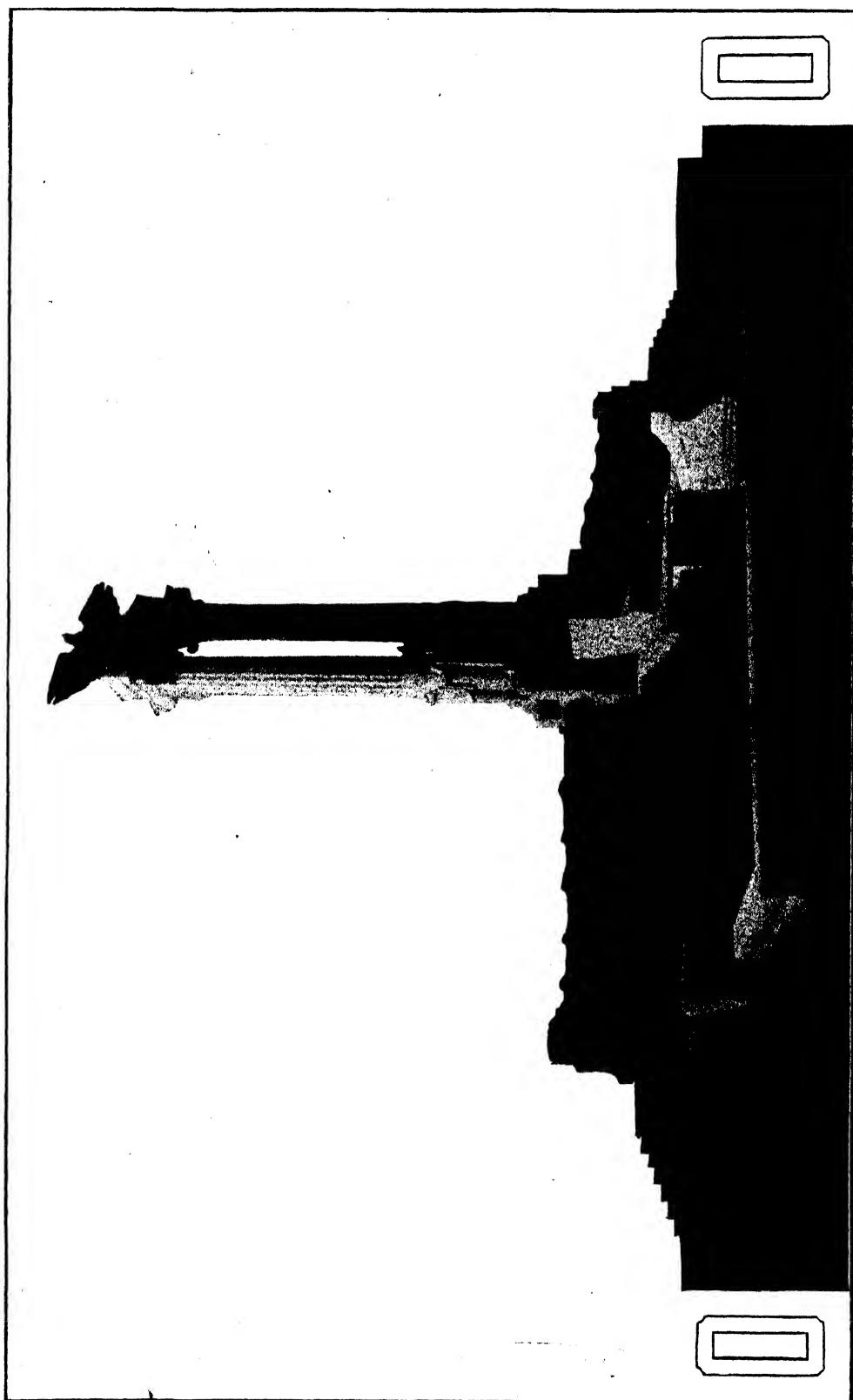
Import duties showed a slight decrease as compared with those of January, the figures being \$3,931,159 and \$3,999,939, respectively, as compared with a budgeted monthly income under this head of \$2,458,333.

Cuba's New Ambassador

The announcement of the appointment of Dr. Rafael Sanchez Aballi as Cuban ambassador to Washington has met with universal approval. Dr. Sanchez is a prominent sugar producer of Oriente, having come from the famous Sanchez family of Central Santa Lucia. He developed Central Baguanos and now has large cane interests in that district. No one could be better equipped to represent Cuba in Washington.

New Judges and Registrars

By Presidential decree, Aurelio G. de Molina and Enrique Modesto Rubio have been appointed Judges of First Instance, respectively, at San Juan y Martinez and Mantua, in Pinar del Rio. Mariano Mauricio Averhoff has been designated registrar of property at Artemisa, and Francisco Saiz y Saavedra as registrar at San Juan y Martinez.



The Maine Monument—View Facing the Water Front



General Gerardo Machado, Cuba's New President

President Machado's Cabinet

President Machado's Cabinet is as follows:

State, Carlos Manuel de Cespedes (Liberal).
 Justice, Dr. Jesus Maria Barrasque (Liberal).
 War and Marine, Rafael Iturralde (Popular).
 Interior, Rogerio Zayas Bazan (Liberal).
 Education, Guillermo Fernandez Mascaro (Popular).
 Sanitation, Daniel Gispert (Popular).
 Treasury, Enrique Hernandez Cartaya (Liberal).
 Agriculture, Commerce and Labor, Andres Pereira (Popular).
 Public Works, Carlos Miguel de Cespedes (Liberal).
 Presidency Virato Gutierrez (Liberal).

Carlos de la Rosa took the oath as Vice President of Cuba in the Senate Chamber at 9:45 A. M., Havana time.

Congress, in joint session, was present at the Vice Presidential inauguration. About twenty special missions from foreign countries and the diplomatic corps, with many prominent people, crowded the gallery.

Aaron Saenz, Mexican Foreign Minister and head of that country's mission to the ceremonies, was the senior foreign representative present. The United States was represented by Ambassador Enoch H. Crowder, First Secretary C. C. Jordan and other members of the staff.

Per Capita Wealth of Cubans Found to Be \$115.90

In accordance with the 1924 census, giving Cuba a population of 3,368,923 inhabitants, the per capita wealth of every inhabitant of the island is \$115.90, distributed in the following manner, if figures of the Treasury Department are correct:

Paper money.....	\$100.67
Gold.....	11.02
Silver.....	3.67
Nickel.....	.54
Total per capita.....	\$115.90

The total stock of money on the island up to December 30, 1924, was as follows:

Gold.....	\$37,104,765.00
Silver.....	12,367,500.00
Paper.....	339,113,032.00
Nickel.....	1,894,050.91

Renewal of Air Mail Service Between United States and Cuba

It is reported that negotiations are being conducted between the Post Office Department and the Cuban Government for re-establishment of the air mail service between Key West and Havana, and proposals have been made for a service between Key West and Colombia via Cuba, Guatemala and the Panama Canal Zone. The proposed service to South America is being promoted by a concern now operating in Colombia which is endeavoring to form an American company to conduct the international service. The tentative plans call for flights between Key West and Bogota via Havana, Guatemala and Panama.

It is said that Postmaster General New would favor giving business to this service provided it was operated by American capital and manned by American pilots, but he would have to secure appropriations from Congress for the purpose. At present the Post Office Department is limited to \$150,000 a year for foreign mail service by aircraft.

Cuban Chamber of Commerce

The Cuban Chamber of Commerce announce the removal of their office from 49 Wall Street to the Munson Building, 67 Wall Street.

Havana Correspondence

May has been preeminently a Machado month. Interest in the doings and sayings of the President-elect has apparently dominated every thought and aspiration of the Cuban Republic since he was declared future President of Cuba by the two Houses of Congress assembled. His trip to the United States was not understood by the general public, and by some criticized as an unnecessary parade, or social invasion into the foreign territory of the United States—that great octopus of the North, whom many Latin-American countries are trying to persuade themselves and others, has for its chief object the desire to swallow up and annex commercially if not politically, all of the territory from the Rio Grande to the Strait of Magellan.

But the cordial and spontaneous reception given to General Machado, not only by the officials in Washington but by the American public as a whole, wiped away the anxiety of the timid few, and filled with pride and satisfaction the hearts of his friends and admirers. More important still, perhaps, were the attentions and general interest shown the President-elect of Cuba on the part of bankers, financiers and business men of the City of New York. No better evidence could be given of the closely related interests of the two countries and of the ties, commercial and social, that naturally bind or unite those countries which have the true interest of Cuba at heart. The returning President-elect has reason to feel proud of the many courtesies shown him during the three weeks spent in the North and not only while abroad, but on his return to Cuba, has he expressed himself as having unbounded confidence in the good will of the people of the United States towards her young protégé just across from Key West.

The reception given him on his return to Cuba was probably as great in its ebullition of genuine pleasure as has ever been shown to any public official in this country. According to conservative estimates some sixty thousand people, who had waited along the water front of the Malecon during the afternoon of May 4th for the first sight of the steamer, followed him afoot and in machines from the boat landing to his home in Vedado. The noise of steamer's sirens, tug-whistles, cannons, skyrockets, and shouts of "Viva Machado"! were almost deafening and the great crowds of excited, struggling people kept up this political jubilee from 7 P. M. far into the night.

Never in the history of the Republic have decorations been quite so plentiful and so elaborate as those prepared for the inauguration of President Machado. The city began by appropriating \$30,000 for decoration purposes, which was followed by Congress voting \$100,000 more, so that money was not lacking to make the inaugural display a feature long to be remembered. All the principal thoroughfares, including Obispo, O'Reilly, Avenida de Italia, Belascoain, Infanta, and San Rafael, were decorated with leaves of the Royal Palm draping every post and doorway, with triumphal arches and other forms of ornamentation which excelled anything before seen in the city of Havana. San Rafael, from the Avenida de Italia to Central Park, was one mass of glittering gold and blue. Thousands of coats of arms of the city and of the Republic, were fastened to every projection, while O'Reilly Street was one continuous canopy of colors from the statue of Albear to the water front at the office of the Captain of the Port.

People from all over the Island began pouring into Havana three days in advance of the inauguration ceremony. Judging from the crowds that thronged the Central Station with every incoming train one could easily believe that half the inhabitants of Cuba came to the capital to take part in the celebration. Thousands of people, Americans and Cubans from Key West, Miami, Jacksonville, and other Florida points poured into the city over the P. & O. Line to be present when General Machado took the oath of office.

Since this ceremony took place in the Presidential Palace only a comparatively few people could witness the event. These included the retiring President with his Cabinet, General Machado with the members of the new Cabinet, Judges of the Supreme Court, and the various Delegations that had been sent by other Latin-American Republics to represent them during the ceremony. Most of the Delegates from foreign countries were quartered in the Sevilla-Biltmore Hotel. The various flags of these nations hung from

the windows of the rooms occupied and gave to the hotel a pleasing and cosmopolitan effect.

The new square that lies between the Presidential Palace, the Colon Market and the Sevilla-Biltmore, has arisen phoenix-like, from the dirt and ashes of the old scrap yard formerly occupied by the Department of Public Works. Within thirty days this graveyard of stone and abandoned machinery was transformed into a beautiful park with green lawns, gravel paths, Royal Palms, foliage plants, flowers, fountains, and statues—a transformation that seemed almost miraculous. A new shaft surmounted by a bronze statue of Alfredo Zayas, the retiring President, was concluded just in time for the unveiling which took place on the day of the inauguration.

Great things have been promised by the new President and all manner of reform, together with constructive legislation, are expected of him. Among the latter is promised the building of the Central Highway from the extreme west of Pinar del Rio to the Province of Oriente in the far east, together with all of the laterals which will spring from the main line, north and south, to our principal cities and seaports. In keeping with the importance of this great scheme of roadbuilding for the benefit of our rural districts, will be the possible construction of what is known as the "Gran Via," the object of which is to permit the enormous amount of traffic which originates along the water front of old Havana, with its narrow streets, barely wide enough for two Ford machines to pass, and so give relief from the congestion that is increasing with the passing of every day, week and month in the capital of this Republic.

Such is the increase in the number of autos, taxis and heavy trucks in the down town districts, that all traffic is at times held up so completely that hours are lost in going a short half mile between the business center of the city and the Prado which marks the line of the old wall that until a comparatively short time ago surrounded the old time Spanish colony recognized as the center of the "Pearl of the Antilles." Unless the "Gran Via" or some outlet of this nature is built within the next ten years, moving traffic in Havana will cease and the congestion become so difficult that all the police force of the city will be unable to control it.

Sugar

The continued low price of sugar with little relief or hope of change during the present year, has brought the sugar industry, in vulgar but expressive parlance, to a show down. Hundreds of "colonos," who, during the past half dozen years, with sugar averaging four cents a pound, have been able to make a fair profit even on lands that were really not adapted to the growth of cane, are today in a critical position. But with sugar at two and a half cents a pound, we have an entirely different proposition. It means for the most of them an absolute inability to break even, and many debts incurred during the recent grinding season will probably remain unpaid.

Scattered over the fields of the three western provinces large areas may today be seen with cane uncut. Even at three cents a pound, the question of profit is doubtful; anything less spells disaster. Many of the "colonos" are seeking other industries, including the planting of vegetables, corn, cowpeas, yuca, calabaza, cabbages, and other quick growing products that usually bring a fair price in the markets of Havana. It is quite certain that these "colonos," although they may contribute some cane from the old fields, will certainly plant no new ones. This, of course, is hard if not fatal to many of the smaller mills located in the western end of the Island, since they must have cane or close down.

One big planter, owner of large properties, and who has several plantations under cultivation, has concluded to convert a cane field of five thousand acres into a henequen plantation as soon as he can secure the suckers, the "colonos" in his neighborhood having refused to cultivate cane on fields that have been exhausted. On the other hand there are owners of mills that although suffering seriously from the present depression of the sugar market, nevertheless are quite hopeful of the future. Among these is General Mario Menocal who has begun work on his sugar mill Santa Marta, located twelve kilometers from Santa Cruz del Sur, on the south coast of Camagüey. He believes that the present situation will bring about a consolidation of the sugar interests with a tendency to maintain more

stable prices that will naturally result from the closing down of mills that are dependent on cane planted in soils never adapted for this purpose.

Mr. Hershey of chocolate fame, is evidently in the optimistic class, since he purchased only a few days ago three more sugar estates between Havana and Matanzas. But Mr. Hershey does not have to sell his sugar at the market price, since he can always use the bulk of it in his chocolate factories and thus secure one of the essentials of that food product at the actual cost of production, which means an increased profit, in a standard article of which he is a big producer.

Mr. Hershey's interest in Cuba is far from selfish, and the many constructive and beneficial works that he has introduced into the Island, especially along the lines of education, have greatly endeared him to the people of the Provinces of Havana and Matanzas. The school for children of the poor, and especially of the farmers in the neighborhood of Aguacate, has proven a decided success. Beginning with sixty pupils, most of them sons and daughters of farmers from the country surrounding his sugar estates, he has increased the number to three hundred, and with competent teachers he is giving them the benefit of a practical education that will enable them to practice agriculture and mechanics along intelligent lines—to become self-supporting and prosperous citizens of the Republic. It is men of the Hershey type that Cuba needs, and all such will find a place in the gratitude and affection of the people which will remain a permanent asset in any enterprise that he may undertake in this country.

Up to the last week in April there was every reason to believe that the present crop of sugar would far exceed anything ever before produced in Cuba. One estimate from a reliable source gave the probable yield for this season's crop at 4,936,000 tons, and had the season remained normal this estimate would probably have become a fact. But the rain god suddenly stepped in and upset all calculations. Heavy downpours began in the eastern and central portions of Cuba on the first of May, two weeks in advance of the usual opening of the rainy season, and the heavy fall of water has continued throughout most of the Island up to the present time.

Forty mills shut down for the season during the first half of May. These mills still had plenty of cane to grind, and with fires once lighted would probably have continued had it not been that the roads over which the cane must be hauled in carts became practically impassable. Had sugar been selling at three and a half cents per pound, or four cents, the cane would have been cut and hauled out at any cost, but under present conditions the majority of the "colonos" rather welcomed the rest which nature saw fit to enforce upon them.

The New York National City Bank

One of the pleasant functions of this gala month was the inauguration, Sunday evening the 17th, of the new building that has just been completed on the site of the old Santa Catalina Convent. This beautiful edifice, built at a cost of over a million dollars, faces on three streets and covers half of the big square that once housed hundreds of nuns whose devotion to their creed shut them out from the contact of the world during their period of life on earth. A detailed description of the building would require a booklet, but the general arrangement, while unique, carries the program of utility to its highest perfection.

The street in front has been doubled in width so that autos and other vehicles may stop at the bank without interrupting traffic. The architecture is different from that of any other institution of similar purpose on this side of the Atlantic. It has an enchanting individuality of its own. Great steel gates which protect the entrance to the building on O'Reilly Street open onto a large space of marble floor, the center of which is occupied by a double line of steel and bronze cages arranged in the form of a parallelogram. These are occupied by the receiving and paying tellers, so that the public may be accommodated without crowding in front of the windows as frequently occurred in the old building on Cuba Street. Great marble columns rise from the floor supporting this magnificent structure of stone, steel and glass.

The bank was brilliantly lighted and decorated with flowers. Thousands of visitors thronged through the aisles and various departments above and below. Mr. J. H. Durell, Vice-President of the National City Bank of New York, welcomed guests at the big front portals while other officers showed them over the interior. Champagne in abundance was served in the President's office on the first floor and more was dispensed in the balconies above. All of Havana's elite in costumes appropriate were in evidence.

Protesting Drafts in Cuba

U. S. DEPARTMENT OF COMMERCE AGENTS REPORT ON LAW AND PRACTICE

What is the cost of protesting a draft for (a) \$500, (b) \$1,000 (c) \$5,000, if unpaid at maturity?

Habana.—The cost of protesting a draft up to \$1,000 ranges from \$8 to \$10; over that amount there may be a slight increase. In the country the charge, owing to the more difficult conditions of communication, is higher, and it is stated that the charge for protesting a draft, where it is necessary to go any considerable distance from the notary's office, is at least \$20, and frequently a good deal more.

Antilla.—The usual fee paid by banks at Antilla for protesting a draft is \$100, regardless of the amount involved. Conditions at Antilla, however, are unique in this respect for the reason that there are no local notaries and it becomes necessary to bring such an officer to Antilla from the larger cities in the district, entailing transportation charges, hotel accommodation, and compensation for the time necessarily occupied by the notary in making the journey—seldom less than two days. The usual charges elsewhere in Cuba may be said to range from \$10 to \$25 outside of Habana.

Cienfuegos.—The notarial fees in this consular district are fixed in each instance by the respective local "College of Notaries," but the rate for protesting drafts at Cienfuegos is presumed to be typical of the rest of this district, which comprises the Province of Santa Clara, Cuba. The cost of protesting a draft irrespective of its amount, is \$15, which is the rate prescribed by the local college of notaries. It is understood, moreover, that some notaries under certain circumstances might be inclined to underbid the tariff rate, while others might be inclined to charge more than the tariff rate, particularly if there is considerable delay or

difficulty connected with the execution of the protest.

Matanzas.—The normal cost of protesting a draft here is \$8.50 (irrespective of the amount), plus tax stamps. The cost is greater if it is necessary to go out of the city or to protest the indorsers of the draft.

Santiago.—The cost of protesting drafts in this district does not depend upon their amount. A notarial tariff of July 31, 1879, is still in force and fixes the fees for protesting a draft at \$3. This tariff, however, is not followed, although the courts would have to apply it in case of litigation. The cost of protesting drafts is generally agreed upon in advance between the notary and the interested party, and it is usually from \$10 to \$15 if the protest is to be made in the same town or city in which the notary resides or has his office. If the protest must be made in another place, the charge will be according to the time and trouble involved. Also, if only one or two notaries are available they may take advantage of this to charge more than would have to be paid if there were many whose services might be utilized. The protest must be made by a notary resident in and having power to act in the judicial district in which it is to be made. For example, a protest cannot be made in Antilla by a notary from Santiago; if there is none in Antilla one must go from Holguin, although it is much easier and less expensive to go from Santiago. For the reasons mentioned, charges of \$100 are not unusual, and the writer knows of one recent case in which it cost \$500 to protest a draft.

Is there a difference in the cost of protesting drafts for nonacceptance and for nonpayment?

No.

What is the time limit within which a draft may be protested? What is the time

limit for legal action following the protest?

Within 24 hours of maturity. Within three years.

As regards the time limit within which a draft may be protested, it may be said that protest must be made between sunrise and sunset of the day following maturity; and article 950, Commercial Code, provides that actions arising from drafts shall extinguish themselves three years after they have fallen due, should they have been protested or not, a similar rule being applied to drafts and promissory notes of commerce, checks, stubs, and other instruments of draft or exchange.

Describe how the protest is effected. If the cost of protesting drafts in your territory is unusually high, what are the reasons for it?

Habana.—Protest is effected by the holder of the draft proceeding to the place of business of the debtor with a notary and demanding payment. The notary records the refusal, giving a copy to each party. The demand must be made to the debtor himself, if present.

Cienfuegos.—The draft is turned over to a local public notary, and he in person presents the same to the drawee or at the latter's business establishment, either for acceptance or for payment, and, failing to secure these, he formally executes the protest. The cost of protesting drafts is not considered unusually high in Cienfuegos.

Santiago.—The protest of a draft is effected in the following manner: The person who has legitimate possession of the draft (either because it was drawn in his favor or indorsed to him, or because he has power of attorney of the drawer or an indorser) presents himself before a notary public who has jurisdiction in the place where the payment or acceptance should be made in time to permit the completion of the protest before sunset of the day following that on which acceptance or payment was refused, exhibits the draft to him, and demands ("requires") that the notary present it to the drawee, and in case the latter does not accept or pay it, that he protest it for nonacceptance or for nonpayment. The notary draws up a minute ("act"), in which he copies the draft entire, with its acceptance, if it has been accepted, and all its indorsements and whatever appears on it.

The holder of the draft leaves it in the hands of the notary. The document which the notary draws up must be signed by the person who requests him to make the protest and by two witnesses, as in the case of any notarial document. It is called a "requerimiento."

In Cuba all such documents must be written with pen and ink. The notary then makes a copy of the requerimiento (with typewriter if convenient) and proceeds to the domicile of the drawee. There he draws up a record of proceedings ("diligencia") in the presence of the drawee, and the latter makes whatever statement he sees fit, which is made a part of the record. If he does not accept or pay the draft, the notary protests the same for nonacceptance or nonpayment, and at the same time writes in the record that he threatened the drawee with having to pay the expenses and losses which may result. The "diligencia" is signed by the drawers and by the notary.

If the drawee is not found in his domicile the proceeding will be gone through with his employee, if he has any, or, in the absence of employees, with the drawee's wife, children, or servants, or with a neighbor whose house or office is open. The notary will deliver a copy of the requerimiento to the drawee or the person on whom the protest is served (employee, wife, servant, or neighbor). The same proceeding is used in cases of nonpayment and of nonacceptance, the only difference being that in the former case the words "por falta de pago" are used and in the latter the words "por falta de aceptacion." If the drawee or his employees, wife, children, servants, or neighbor refuse to sign, the notary can call two witnesses, who are obliged to sign under the penalty for disobedience to the authority.

The notary keeps the draft until sunset, and during that time the drawee may pay the draft and the expenses incurred, in which case the protest is canceled, a statement to that effect being written at the foot of the document. The notary keeps the minute or record of "requerimiento" and that of protest and makes a copy of all and delivers it to the holder of the draft, together with the draft. If the drawee pays, the notary does not make any copy but only delivers the draft to the drawee with a note stating that it has been paid.

All these proceedings are written down with pen and ink, the notary keeping the originals. Because of the work and trouble involved, the necessity of doing everything within a short time, the copies that must be made, and at times the distance that the notary has to go with his clerk the cost of protesting drafts in this district is high and often excessive. For these reasons also the cost varies and is generally a matter of agreement between the holder of the draft and the notary.

What is your opinion on the advisability of protesting drafts (1) in connection with a single shipment to a new customer when he refuses (a) to accept the draft, (b) to pay and accept the draft; (2) in connection with one or several shipments to an old customer temporarily embarrassed (a) when he refuses to accept the draft, (b) when he cannot meet an accepted draft?

Habana.—It is the opinion of the consulting attorney of one of the principal banks who was consulted in this matter that drafts for \$100 or over should generally be protested, except under exceptional circumstances, as the failure to protest invalidates the draft and reduces the action to a simple legal claim.

There is no legal value in protesting for nonacceptance.

Antilla.—It is strongly inadvisable to protest drafts in this consular district, whether such action be contemplated in respect to a single shipment to a new customer who refuses to accept or to pay an accepted draft, or in connection with one or several shipments to an old customer temporarily embarrassed who refuses to accept a draft or finds he cannot meet it when accepted—this for the reason that any legal action pursuant to a protest drives the drawee to methods of evasion, and usually results in the loss not only of the amount of the draft but of the rather high costs involved in the procedure. The only solution in this district is to appoint a local agent, thoroughly acquainted with commercial practices in Cuba, and give him full power to act for his principal in the transaction. The services of such a man can be had at a reasonable figure, and he has often been the means of saving his principal from heavy losses. Local bankers state that American firms do now, as a rule, employ such men,

and instruct their bankers, in the event of nonpayment of drafts at maturity, to refer the matter to their local representative.

Cienfuegos.—Under Cuban law a draft, the acceptance or payment of which has been refused, should always be protested, as otherwise the drawer will lose his right of quick action against the drawee, thus making possible a very prolonged and expensive court procedure before the claim in question can finally be collected. The protesting of unaccepted or unpaid drafts at Cienfuegos may be said to be almost universal, and any merchant refusing to accept or pay a draft would expect that it would be presented for protest.

Santiago.—(1a) When a new customer refuses to accept a draft it is usually advisable to protest, as he will then give his reasons for refusing and it may serve as evidence in case a lawsuit becomes necessary.

(1b) It is advisable and necessary to protest in case of nonpayment so as to preserve the right to executory or prompt action. The legal form of action called "ejectivo" is open to the holder of a draft only when he has protested the draft in time; otherwise he has only the ordinary action ("juicio declarativo"), which is much longer and more expensive.

(1c) In connection with one or several shipments to an old customer it is considered to be generally advisable to protest drafts for nonacceptance, and advisable and necessary to protest for nonpayment, so as to preserve the right to executory action.

The protesting of a draft does not have as serious an effect on the local reputation of the drawee here as it would have in the United States, and consequently it does not produce the same resentment here as it does there. This is because the protest is not given much publicity in this country (being used only for its legal effects), and because the protesting of drafts is so common in this district, especially during the last two years, that most houses are accustomed to it. Generally speaking, it is considered best to protest drafts for nonpayment, not only because protest gives executory action in the case of nonpayment of an accepted draft but also to protect the indorsers.

Matanzas.—The advisability of protesting drafts for nonacceptance or for nonpayment depends upon the firm's relations with the customer.

The advantage of a protest is that the position of the creditor is immediately recognized by the courts and immediate action is possible, while in the case of an unprotested draft, considerable delay is experienced during the time the creditor is having the debtor subpoenaed to recognize his signature or the debt. This delay often results in a dishonest party disposing of his properties.

If it is desired to extend time to a customer who cannot meet an accepted draft at maturity, is it possible to extend the draft without losing the legal rights under the draft? In such a case may extension be safely marked on the old draft, or is it preferable to exact a new acceptance?

Habana.—Where it is desired to extend time to a customer who cannot meet an accepted draft at maturity, there appears to be a difference of opinion in legal circles as to whether it is possible to extend the draft without losing the legal rights thereunder. That is to say, where an accepted draft is not paid at maturity, but is reaccepted on an extension of time, there are certain legal authorities who hold that the courts will not sustain an action arising out of protest on failure to meet the draft at the expiration of the period for which it has been reaccepted. In any event, the local bankers are not disposed to grant such extensions which might result in the loss, by the drawer of the draft, of his right of action (a point frequently overlooked by American firms), and they strongly advise that a new draft be forwarded for acceptance to replace the old one, carrying only the new date of maturity.

Antilla.—Under the Cuban law a draft may not be extended or reaccepted. Such reacceptance, in a recent case, caused the court to disallow the action brought and throw the case back for trial as a simple action against the debtor. A new draft should always be taken in such a case.

Cienfuegos.—It is not possible in Cuba to extend time to a customer, and the extension of a draft in this way really

jeopardizes the drawer's legal rights under the draft. Legally, therefore a new draft is always required in such cases.

Matanzas.—If it is desired to extend time to a customer who cannot meet an accepted draft at maturity, an extension can be made on the old draft, but a new draft is preferable. In the first case it is important that the consent of all former holders of the draft be obtained in order that they will not be relieved of the responsibility.

Santiago.—It is not possible to extend a draft without losing the legal rights under the draft. It is preferable to exact a new acceptance.

Are there any days of grace allowed under the laws in the payment of promissory notes, drafts, etc.?

No days of grace are allowed under the laws of Cuba. Where drafts, promissory notes, etc., fall due on Sundays or on holidays they are payable on the day previous to the due date.

Will the banks in your district safeguard the drawer's interests by such action in connection with drafts as circumstances call for, or are they accustomed to strictly follow instructions from the drawer?

Habana.—While the banks in this district will, in general, follow the drawer's instructions closely it is stated that they will safeguard his interests by taking such action as the circumstances call for under the advice of the bank's attorney.

Antilla.—The banks in this district are reluctant to undertake to safeguard the drawer's interests by taking any action in connection with drafts which might in any way prejudice the drawer, but are accustomed to follow strictly the latter's instructions.

Cienfuegos.—The banks in Cienfuegos, and generally also in this district, are accustomed to strictly follow the drawer's instructions in the matter of protesting drafts, and if acceptance or payment of a draft is refused it is understood that they usually even ask instructions by cable of the drawer, provided there remains sufficient time. If, however, no instructions are received, they are practically compelled to protest the draft, as otherwise they have the responsibility of

jeopardizing the drawer's right of action as explained above.

Matanzas.—The banks here are accustomed to strictly follow instructions from the drawer, but in the absence of such instructions they will often protest drafts, especially when the amounts are considerable.

Under the laws of Cuba, is the agreement or the instruction not to protest an accepted draft valid?

The "No protest" instruction on a draft merely constitutes an instruction to the banker which may subsequently be countermanded by the drawer or which the banker in the interests of the drawer may even find it necessary to disregard. Under the laws of Cuba the agreement or instruction not to protest an accepted draft is valid in so far as the parties to the draft are concerned, but the interests of an innocent third party cannot be subjected to such an agreement or instruction.

What are the rights of the drawer of an accepted draft in the event of bankruptcy or insolvency of the drawee occurring between the acceptance and the date of maturity?

Habana.—The rights of the drawer of an accepted draft in the event of bankruptcy or insolvency of the drawee occurring between the acceptance and the date of maturity are the same as those of any other ordinary creditor.

Matanzas.—In the event of bankruptcy or insolvency of the drawee occurring between the acceptance and the date of maturity of a draft—and, in the opinion of local bankers, only in such an event—it would seem to be advisable for the drawer of an accepted draft to have it protested, as he could at least go before a meeting of creditors on a better footing than would otherwise be the case.

Santiago.—The rights of the drawer of an accepted draft in event of the bankruptcy or insolvency of the drawee occurring between the acceptance and the date of maturity do not differ from those of any ordinary creditor. In case of bankruptcy of the drawee the holder of the draft may, however, protest for non-payment before the date of maturity. By

doing so he places himself in the same position as other creditors who hold matured drafts of the bankrupt, and also, if there are indorsers, he then has legal rights against them.

American Export Journals

The following is an excerpt from Commerce Reports:

In planning an advertising campaign for foreign business, the exporting manufacturer may well give careful study to the opportunities presented by American export journals. In the early stages of American export activities, these publications were the pioneers in foreign publicity. The foundation of many flourishing export departments has been laid by advertising in American export journals.

As American trade with foreign countries expanded and a more intense cultivation of individual markets was attempted, the publicity needs of American foreign trade in many cases required additional channels. Carefully planned circularization, the development of the export house organ, the intelligent use of lists, and the influence of the foreign resident agent upon the direction of publicity—all these factors have had their effect upon the shaping of foreign publicity campaigns.

There are still many manufacturers who are beginners in export. To these, a judicious use of publicity opportunities presented by the high-grade American export publications, both general and specialized, offers an excellent medium, not only for testing the exportability of their product but also for building up a nucleus of foreign business.

But even manufacturers with established foreign business, including those possessing a network of agencies and affiliations in foreign markets, as well as the rapidly increasing number of advertising agencies which undertake the direction of manufacturers' publicity campaigns for foreign trade, have every reason to examine carefully the true place of the high-grade export journal in foreign publicity.

One great advantage to American business abroad offered by the American export journal is the essentially American character of the publication. Whether printed in Spanish, French, or Portuguese, the Ameri-

can export journal offers its news and information to the prospective buyer under auspices favorable to the American advertiser.

The value of export publications in trade and good-will building is fully recognized by the exporters of British and German goods. A single German export paper is reported as carrying approximately 900 advertisements of German manufacturers in each issue. Buyers in many foreign countries look to the American export journal for novel ideas, because the world outside our gates regards America as a great laboratory of constructive thought in business and industry. This presents a most favorable receptive background for reaching the world through American export publications.

Export trade journals must stand and fall strictly on their merits. Their historic service in the building up of American export may be freely admitted. Have they outlived their usefulness, or have they kept pace with the development of American foreign trade? The continuance of advertising patronage, the consensus expressed at gatherings of export directors, and, in fact, the very appearance of leading export publications, seem to point in the direction of continued usefulness.

Advertising in American export publications is not the sole channel for bringing American goods before the buyers of the world, but in any intelligent scheme of world publicity the American manufacturer will do well to make a careful study of the availability of American export journals in the merchandising of his products in individual foreign markets.

Cuban Custom House Receipts

Notwithstanding unfavorable reports relating to general business conditions in Cuba, receipts by the Havana custom house for April were \$3,214,116, which is \$900,000 more than for April, 1924, and higher than for any previous month of the current year. The labor situation is unchanged and a railroad strike is considered improbable. With the sugar market continuing at low levels, business remains in a state of uncertainty. The Cuban Congress has agreed to close in June, and, as the following legislature does not open until November, legislation of major importance may not be expected at an early date.¹

Government Appropriations

Appropriations for the U. S. Department of Agriculture for the year ending June 30, 1926, were made by the Congress, just ended, as follows: For sugar plant investigations, including studies of diseases and the improvement of sugar beets and sugar beet seed, \$140,695; for the investigation and development of methods for the manufacture of table syrup and sugar, and of new methods for the manufacture of sweet syrups by the utilization of new agricultural sources, \$28,000.

Investigational work covering insects affecting sugar cane in the southern states is included in an appropriation of \$255,440, which applies to studies of all insects in the southern states, and investigations of sugar beet insects are covered by another appropriation for insects affecting truck and other similar crops.

These appropriations are exclusive of funds of \$31,000 for sugar cane and \$15,000 for sugar beet work, which were separately appropriated as emergency measures.

Mauritius Sugar Shipments

It is reported that sugar exports from Mauritius from the beginning of the 1924-25 crop (August 1) to the end of February are 189,198 metric tons, against 184,160 tons for the corresponding period of 1923-24 and 210,242 tons for 1922-23. Shipments included 149,563 tons to India, 31,775 tons to Great Britain, 7,603 tons to Canada, and 257 tons to other destinations. In the corresponding period of 1923-24 shipments to India were 2,299 tons, to Great Britain 180,773, and to all other countries 1,088.

Stocks in port at the end of February were 28,089 tons, compared with 9,847 tons on March 1, 1924.

U. S. Exports of Footwear to Cuba

Cuba, the leading market for all kinds of United States leather footwear, purchased 125,320 pairs of men's and boys' shoes in March, 1924, and 140,290 pairs in March, 1925.

Children's shoes to the number of 131,102 pairs were exported to Cuba in March, 1925.

Havana Electric Railway, Light & Power Company

Thirteenth Annual Report of the Directors for the Year Ended December 31, 1924

TO THE STOCKHOLDERS:

Your Directors beg to submit their Thirteenth Annual Report.

The Gross Earnings for the past five years were as follows:

1920	1921	1922	1923	1924
\$11,477,937.27	\$12,882,652.56	\$12,910,707.17	\$13,458,063.95	\$14,357,901.12

A condensed statement of the results of the operations during the same five years is:

	1920	1921	1922	1923	1924
Gross Earnings.....	\$11,477,937.27	\$12,882,652.56	\$12,910,707.17	\$13,458,063.95	\$14,357,901.12
Operating Expenses and Taxes..	6,448,451.78	7,376,343.65	6,308,968.10	6,571,340.72	7,433,585.10
Net income.....	\$5,029,485.49	\$5,506,308.91	\$6,601,739.07	\$6,886,723.23	\$6,924,316.02
Miscellaneous income (net).....	47,783.85	122,766.56	189,052.87	396,270.51	339,686.14
Total net income.....	\$5,077,269.34	\$5,629,075.47	\$6,790,791.94	\$7,282,993.74	\$7,264,002.16
Interest Charges....	968,759.31	1,009,011.33	1,087,007.54	1,117,166.21	1,088,949.78
Net profits from operation and miscellaneous income.	\$4,108,510.03	\$4,620,064.14	\$5,703,784.40	\$6,165,827.53	\$6,175,052.38

Out of the net profits from operation and miscellaneous income for the year under review, namely..... \$6,175,052.38
there has been set aside as reserve for depreciation and contingencies..... 3,240,638.12

leaving a balance of..... \$2,934,414.26

The balance at credit of profit and loss account, January 1, 1924, was..... 4,092,568.67

Total..... \$7,026,982.93

The following disposition was made thereof:

Miscellaneous accounts written off, net.....	\$31,113.82
Amortization of discount and expenses on funded debt.....	46,485.90
Provision for sinking fund in respect to English Bonds of Compania de Gas y Electricidad de la Habana.....	17,400.00
Provision for sinking fund in respect to the Consolidated Mortgage Bonds of the Havana Electric Railway Company.....	144,286.84
Provisions for sinking fund in respect to the General Mortgage Bonds of Havana Electric Railway, Light & Power Company.....	156,983.34
Dividends paid during the year (6% on the Preferred Stock and 6% on the Common Stock).....	2,155,213.53
Balance carried forward to 1925.....	4,475,499.50
Total.....	\$7,026,982.93

The following is a summary of the operation of the various departments during the year 1924:

Departments	Gross Earnings from Operation	Operating Expenses and Taxes (not including Interest Charges)	Per Cent. of Gross Earnings	Net Income from Operation	Per Cent. of Gross Earnings
Electric Railway.....	\$5,924,606.26	\$4,120,948.53	69.56	\$1,803,657.73	30.44
Electric Light & Power..	6,445,152.99	2,154,578.16	33.43	4,290,574.83	66.57
Gas.....	1,988,141.87	1,158,058.41	58.25	830,083.46	41.75
	<u>\$14,357,901.12</u>	<u>\$7,433,585.10</u>	<u>51.77</u>	<u>\$6,924,316.02</u>	<u>48.23</u>

From the accompanying report of the General Manager, to which your attention is respectfully called, you will note that:

Gross receipts from all sources for 1924 were.....	\$14,697,587.26
The total deductions for operation, maintenance and accrued taxes were.....	7,433,585.10
The net additions to property account were.....	1,628,580.36
Customs duties on imports into Cuba were.....	226,241.90
Total number of railway passengers carried were.....	114,872,616
Passenger car miles were.....	18,028,046
Passenger earnings per car mile were.....	\$.3186
Total net output of Power Plant in K.W.H. was.....	105,647,295
Total K.W.H. sold.....	71,651,071
Total number of electric meters in service, December 31, 1924.....	48,526
Total gas output in cubic feet was.....	1,247,874,464
Total number of gas meters in service, December 31, 1924.....	16,759

During the early months of 1924, the balance of the 1923-24 sugar crop was sold at good prices and through the spring and summer, the weather was favorable to the production of a large quantity of cane for the 1924-25 harvest. Business improved over 1923, and there was greater confidence in the immediate future, which was reflected by unusual activity in building construction throughout the year. New building was widely distributed, but included a number of office buildings, large apartment houses and hotels in the already built-up districts, which will increase the density of population to be served by the existing lines of this Company. There was also a revival of interest in residence real estate in outlying and suburban districts, which has been almost inert since 1920.

In response to these conditions the sales of electricity and gas increased steadily and the gain in new consumers was excellent.

The Electric Light and Power Department shows an increase of 12.2% in gross earnings and 11.8% in net earnings.

The Gas Department gross earnings increased 7.4% and the net earnings 10.5%.

The Railway Department gross earnings increased 1.0% and the net earnings decreased 7.7%. The relatively unfavorable showing of this Department is due largely to a sympathetic strike which led to a suspension of railway service for substantially a week during which the distribution of electricity and gas was not materially interfered with.

For the first time since 1917 considerable extensions of the railway lines were built, divided between the central districts of the City, where the density of traffic has increased greatly, and new outlying residence districts that are being developed.

The electrical output of the Consolidated Power Plant increased 10.74%.

Your attention is respectfully called to the report of the Consulting Engineer of your Company which follows immediately after the report of the General Manager.

The accounts of your Company are audited monthly by Messrs. Deloitte, Plender, Griffiths & Company, and accompanying this report will be found the Balance Sheet and Profit and Loss Account as of December 31, 1924.

Your thanks are due to the officers and employees of your Company for their loyal cooperation and efficient services.

For the Board of Directors,

F. STEINHART, *President.*

HAVANA, CUBA,
April 1, 1925.

BALANCE SHEET, DECEMBER 31, 1924

ASSETS

<i>Properties, Plant and Equipment</i> , as per balance sheet, December 31, 1923.....			\$64,654,817.76	
Net additions during year.....			1,628,580.36	\$66,283,398.12
<i>Investments</i> (at cost).....				1,586,976.60
<i>Current Assets:</i>				
Cash in banks and on hand.....			\$6,676,392.22	
Accounts and notes receivable after providing for bad and doubtful debts.....			2,716,056.94	
Materials, merchandise and supplies on hand.....			1,658,319.67	
Materials in transit.....			55,123.40	11,105,892.23
<i>Special Cash Funds</i>				967.99
<i>Deferred Assets, Charges, Etc.:</i>				
Insurance paid in advance, etc.....				52,598.96
<i>Capital Stock of Havana Electric Railway, Light & Power Company</i> Held in reserve in respect of the following:			\$17,542.00	
<i>Capital Stock of Havana Electric Railway Company, Outstanding:</i>				
To be exchanged for capital stock of the Havana Electric Railway, Light & Power Company.....		\$14,840.00		
<i>Capital Stock of Compania de Gas y Electricidad de la Habana, Outstanding:</i>				
To be exchanged for Capital Stock of the Havana Electric Railway, Light & Power Company.....		2,702.00	17,542.00	
				\$79,029,833.80

LIABILITIES

<i>Capital Stock:</i>				
Authorized:				
210,000 shares of 6% Cumulative Preferred Stock, par value \$100.00 each	\$21,000,000.00			
150,000 shares Common Stock, par value \$100.00 each.....	15,000,000.00			
			\$36,000,000.00	
Issued and fully paid:				
6% Cumulative Preferred Stock:				
209,787 shares, par value \$100.00 each	\$20,978,700.00			
Less: Held in treasury 21.13 shares, par value \$100.00 each.....	2,113.00	\$20,976,587.00		
<i>Common Stock:</i>				
150,000 shares, par value \$100.00 each	\$15,000,000.00			
Less: Held in treasury 567.79 shares, par value \$100.00 each.....	56,779.00	14,943,221.00	\$35,919,808.00	
<i>Funded Debt:</i>				
As per schedule attached hereto.....			20,781,740.74	
<i>Mortgage on Real Estate</i>			100,000.00	
<i>Current Liabilities:</i>				
Accounts payable.....		\$315,706.74		
Dividends and interest due but unpaid.....		153,780.44		
Accrued interest on bonds.....		245,578.62	715,065.80	
<i>Consumers' and other deposits</i>			803,905.97	
<i>Reserve for taxes and contingencies</i>			2,435,094.66	
<i>Special reserve</i>			522,952.51	
<i>Reserve for depreciation</i>			10,975,628.51	
<i>Corporate surplus:</i>				
As per schedule attached hereto.....			6,775,637.61	
				\$79,029,833.80

CORPORATE SURPLUS—DECEMBER 31, 1924

<i>Profit and Loss Account</i> —Credit balance at December 31, 1923.....			\$4,092,568.67
ADD:			
NET PROFIT FOR THE YEAR 1924, AS PER			
PROFIT AND LOSS ACCOUNT.....			2,538,144.36
			<u>\$6,630,713.03</u>
DEDUCT:			
<i>Dividends Paid:</i>			
On Preferred Stock:			
May 15, 1924, on \$20,976,697.00 at 3%.....	\$629,300.91		
Nov. 15, 1924, on \$20,976,687.00 at 3%.....	629,300.61	\$1,258,601.52	
On Common Stock:			
May 15, 1924, on \$14,943,546.00 at 3%.....	\$448,306.38		
Nov. 15, 1924, on \$14,943,521.00 at 3%.....	448,305.63	896,612.01	2,155,213.53
<i>Profit and Loss Account</i> —Credit balance at			
December 31, 1924.....			\$4,475,499.50
<i>Funded Debt Retired Through Income and</i>			
<i>Surplus:</i>			
Consolidated Mortgage 5% Gold Bonds			
of Havana Electric Railway Company.....		\$1,215,000.00	
Thirty-Seven Year English 5% Sinking			
Fund Mortgage Bonds of Compania de			
Gas y Electric dad de la Habana.....		220,883.27	
General Mortgage 5% Sinking Fund Gold			
Bonds of Havana Electric Railway,			
Light & Power Company.....		621,000.00	2,056,883.27
<i>Sinking Fund Reserves:</i>			
Consolidated Mortgage 5% Gold Bonds			
of Havana Electric Railway Company.....		\$153,950.67	
General Mortgage 5% Sinking Fund Gold			
Bonds of Havana Electric Railway,			
Light & Power Company.....		89,304.17	243,254.84
<i>Corporate Surplus</i> , carried to balance sheet.....			<u>\$6,775,637.61</u>

CONDENSED PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1924

	Railway Department	Light and Power Department	Total
Gross earnings from operations.....	\$5,924,606.26	\$8,433,294.86	\$14,357,901.12
Operating expenses.....	3,952,872.56	2,588,636.57	6,541,509.13
	<u>\$1,971,733.70</u>	<u>\$5,844,658.29</u>	<u>\$7,816,391.99</u>
Deduct:			
Taxes, U. S. A.....	\$74,579.50	\$290,000.00	\$364,579.50
Taxes, Cuba.....	90,123.43	434,000.00	524,123.43
Trigo Annuities.....	3,373.04		3,373.04
Interest.....	609,698.68	479,251.10	1,088,949.78
	<u>\$777,774.65</u>	<u>\$1,203,251.10</u>	<u>\$1,981,025.75</u>
	<u>\$1,193,959.05</u>	<u>\$4,641,407.19</u>	<u>\$5,835,366.24</u>
Deduct:			
Reserve for depreciation.....	\$509,602.97	\$1,981,035.15	\$2,490,638.12
Reserve for contingencies.....	153,455.54	596,544.46	750,000.00
	<u>\$663,058.51</u>	<u>\$2,577,579.61</u>	<u>\$3,240,638.12</u>
	<u>\$530,900.54</u>	<u>\$2,063,827.58</u>	<u>\$2,594,728.12</u>
Add:			
Interest on deposits.....			\$251,012.22
Income from securities.....			21,611.39

CONDENSED PROFIT AND LOSS ACCOUNT—Continued

Rents.....		\$37,750. 87	
Other miscellaneous income.....		29,311. 66	
		<u>\$339,686. 14</u>	
			\$2,934,414. 26
<i>Deduct:</i>			
Miscellaneous accounts written off, net.....	\$31,113. 82		
Amortization of discount and expenses on funded debt.....	46,485. 90		
Provision for Sinking Fund of Thirty-Seven-Year English 5% Mortgage Bonds of Compania de Gas y Electricidad de la Habana.....		17,400. 00	
Provision for Sinking Fund of Consolidated Mortgage 5% Gold Bonds of Havana Electric Railway Company.....		144,286. 84	
Provision for Sinking Fund of General Mortgage 5% Sinking Fund Gold Bonds of Havana Electric Railway, Light & Power Company.....	156,983. 34		396,269. 90
Net profit for the year, carried to surplus account.....			<u>\$2,538,144. 36</u>

SCHEDULE OF FUNDED DEBT
DECEMBER 31, 1924

Consolidated Mortgage 5% Gold Bonds of Havana Electric Railway Company, dated February 1, 1902, due February 1, 1952.....	\$8,237,111. 09		
Less: In treasury.....	946,941. 09		\$7,290,170. 00
6% General Consolidated Obligations of Compania de Gas y Electricidad de la Habana, called for redemption on June 15, 1917.....			3,100. 00
Fifty-Year 6% Mortgage Bonds of Compania de Gas y Electricidad de la Habana, dated 1904, due 1954.....	\$3,998,000. 00		
Less: In treasury.....	96. 00		3,997,904. 00
Thirty-seven-Year English 5% Sinking Fund Mortgage Bonds of Compania de Gas y Electricidad de la Habana, 1906.....	£104,300	\$504,116. 73	
Less: In treasury.....	89,700	433,549. 99	
	<u>£14,600</u>		70,566. 74
General Mortgage 5% Sinking Fund Gold Bonds of Havana Electric Railway, Light & Power Company, dated September 1, 1914, due September 1, 1954.....		\$10,828,000. 00	
Less:			
Deposited with Trustee under Sinking Fund.....	\$621,000. 00		
Deposited with Cuban Government.....	52,000. 00		
In treasury.....	735,000. 00	1,408,000. 00	9,420,000. 00
			<u>\$20,781,740. 74</u>

STATEMENT OF OPERATION OF THE LIGHT & POWER DIVISION FOR THE YEAR ENDED
DECEMBER 31, 1924

<i>Earnings:</i>	Electricity	Gas	Total
Sales.....	\$6,297,859. 78	\$1,886,657. 62	\$8,184,517. 40
Miscellaneous.....	147,293. 21	101,484. 25	248,777. 46
<i>Gross Earnings</i>	<u>\$6,445,152. 99</u>	<u>\$1,988,141. 87</u>	<u>\$8,433,294. 86</u>
<i>Operating Expenses:</i>			
Manufacture.....	\$714,970. 41	\$601,895. 10	\$1,316,865. 51
Distribution.....	297,392. 49	197,095. 13	494,487. 62
General.....	535,579. 16	241,704. 28	777,283. 44
TOTAL OPERATING EXPENSES	<u>\$1,547,942. 06</u>	<u>\$1,040,694. 51</u>	<u>\$2,588,636. 57</u>
<i>net earnings from operation for 1924</i>	<u>\$4,897,210. 93</u>	<u>\$947,447. 36</u>	<u>\$5,844,658. 29</u>

Deductions for Division:

Interest.....	\$479,251.10
Taxes.....	724,000.00
Reserved for depreciation and contingencies.....	2,577,579.61

TOTAL.....	3,780,830.71
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Net income for the division for 1924.....	\$2,063,827.58
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STATEMENT OF OPERATION OF THE RAILWAY DIVISION FOR THE YEAR ENDED DECEMBER 31, 1924

Earnings:

Cars.....	\$5,852,393.00
Miscellaneous.....	72,213.26

Gross earnings.....	\$5,924,606.26
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Operating Expenses:

Maintenance.....	\$775,041.25
Transportation.....	2,781,865.37
General.....	395,965.94

TOTAL OPERATING EXPENSES.....	3,952,872.56
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Net earnings from operation for 1924.....	\$1,971,733.70
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Deductions for Divisions:

Interest.....	\$609,698.68
Taxes.....	164,702.93
Trigo Annuities.....	3,373.04
Reserved for depreciation and contingencies.....	663,058.51

TOTAL.....	1,440,833.16
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Net income for the division for 1924.....	\$530,900.54
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Traffic Receipts of Cuban Railroads

*Earnings of the Havana Central Railroad Company**Weekly Receipts:*

	1925	1924
Week ending April 25.....	£15,887	£13,449
Week ending May 2.....	15,961	12,619
Week ending May 9.....	16,171	12,616
Week ending May 16.....	15,606	12,616

*Earnings of the United Railways of Havana**Weekly Receipts:*

	1925	1924
Week ending April 25.....	£142,389	£94,230
Week ending May 2.....	148,145	117,551
Week ending May 9.....	127,588	107,096
Week ending May 16.....	119,683	95,295

Havana Electric Railway, Light & Power Company

	MONTH OF MARCH		3 MONTHS TO MARCH 31	
	1925	1924	1925	1924
Operating revenues.....	\$1,250,775	\$1,180,322	\$3,812,139	\$3,557,515
Operating expenses and taxes.....	647,195	611,510	1,936,767	1,835,725
Net revenues.....	603,580	568,812	1,875,372	1,721,790
Other income.....	32,706	26,119	106,862	82,418
Total income.....	636,286	594,931	1,982,234	1,804,208
Interest charges.....	89,754	91,487	269,433	275,030
INCOME, after deducting taxes and interest charges.....	546,532	503,444	1,712,801	1,529,178
Sinking fund requirements.....	27,292	26,190	83,252	79,580
Balance of income.....	519,240	477,254	1,629,549	1,449,598

Cuban Commercial Matters

Cuba as a Market for American Goods

According to Mr. Julius Klein in Commerce Reports, Cuba stood sixth in our export trade in 1924, being outranked by only the United Kingdom, Canada, Germany, France, and Japan, having purchased from us goods to the value of \$199,779,279. The Cubans enjoy a relatively high purchasing power, and since a large part of their requirements must be met by importations, per capita imports are high, amounting to \$86 in 1923.

The Cuban market represents a well-developed field of endeavor for the American exporter and is fairly well covered in most lines. The market has been expanded and the desires of the people stimulated by advertising and concentrated sales effort; nevertheless, there are many lines for which a trade can be built up and existing demands stimulated by proper cultivation. Economic conditions have shown steady improvement during the past two years and another such year will undoubtedly mark the elimination of the old indebtedness of many firms arising out of the slump of 1920 and will see the market once more restored to a normal purchasing basis.

The island's purchases from the United States cover a wide variety of products, but the largest single group consists of foodstuffs, which through a series of years have constituted 35 per cent of the total importations. Although Cuba is plentifully endowed in both soil and climate for the production of practically all essential food commodities, its energies have been concentrated on sugar and tobacco, to the neglect of most articles of ordinary food required for the maintenance of its population, and the bulk of food requirements must be imported.

The United States is a natural supplier of the Cuban market, inasmuch as it produces just those things that Cuba needs. It is by far the largest supplier of Cuba's requirements. The United States enjoys a preferred position in this market, particularly for the following reasons: Unusual commercial ties fostered by a reciprocity treaty which gives the United States a reduction of from 20 to 40 per cent in the Cuban customs tariff; large American in-

vestments which approximate nearly a billion and a half dollars and exceed those in any other Latin-American country; special facilities for trade and intercourse, such as established connections in commercial lines which extend to practically every class of business; a common monetary system; direct telephone connection; and a direct freight service, via Key West, to all points in Cuba.

Cuban Trade Increased in 1924

M. J. Meehan, of the Department of Commerce, Latin-American Division, writes as follows in Commerce Reports:

The external commerce of Cuba reached a total volume of \$724,594,585 in 1924, consisting of imports valued at \$290,525,585 and exports at \$434,069,000, according to the figures contained in the recent message of the President of Cuba to Congress. This figure is in excess of the volume of trade in the previous year by \$34,568,864, although the distribution of the trade was not quite as favorable as in 1923. The value of imports increased by \$21,574,479 while the value of exports increased by only \$12,994,357. The balance of trade in favor of Cuba in 1924 amounted to \$143,543,415, a decrease of over \$9,000,000 when compared with the balance of \$152,123,537 in the previous year.

EXPORTS TO THE UNITED STATES DECREASE

The value of exports to the United States declined from \$367,345,910 in 1923 to \$361,468,413 in 1924. This decline is more than accounted for by the value of sugar shipments; the quantity decreased only slightly. Shipments of molasses fell off somewhat in quantity, but on account of the high prices the value increased over 100 per cent. Shipments of tobacco to the United States increased in value during 1924 but fell off slightly in volume. Exports of stemmed tobacco declined in both quantity and value, while those of unstemmed tobacco gained in both quantity and value. Shipments of cigars fell off in volume but increased in value while scrap tobacco declined in both quantity and value. Asphalt, chrome, copper, and manganese ore exports

increased in value over the 1923 figures but shipments of iron ore fell off in both quantity and value. Exports of fruits to the United States showed only small variations, the value being slightly greater than that of 1923.

UNITED STATES AND EUROPEAN MARKETS COMPARED

The share of the United States in the total export trade of Cuba showed a falling off from the previous year, the percentages being 87.2 and 83.2, respectively. This decline was occasioned by the greater volume of sugar moving to European countries, particularly to the United Kingdom. Cuba harvested a record crop of sugar, and, as the movement to the United States was not so heavy as in the previous year, it was necessary to send the balance to other markets.

Exports to European countries, with the exception of Spain, recorded increases over those for 1923. The largest individual gain was in the case of the United Kingdom, with a gain in purchases from Cuba of \$16,854,413 and its percentage of the trade from 7.6 per cent in 1923 to 11.3 per cent in 1924. Germany more than doubled its purchases, while France increased its share by over 60 per cent. The total Cuban exports to these two countries are not, however, very large.

DISTRIBUTION OF IMPORTS UNCHANGED

The share of the leading countries in Cuba's import trade showed little variation from the previous year. The share of the United States declined slightly, from 67.7 per cent in 1923 to 66.2 per cent in 1924, although registering an actual gain in value of \$10,324,756. European countries, with the exception of the United Kingdom, received a proportionate share of the increase, especially in the case of Germany, which passed France, and now ranks next to the United Kingdom in the value of goods furnished to Cuba, Spain still holding second place. Importations from the United Kingdom recorded a drop of \$708,779.

The following table shows the exports and imports of Cuba, by countries, for the past four years. These figures indicate the gradual recovery which has occurred in Cuba since the slump of 1921. With the constant improvement in the economic situation and the gradual working off of accumulated stocks which has taken place

in the past two years, imports have recorded favorable gains. The year 1924 marked the passing of the last of these accumulated stocks and saw the market once more restored to a normal purchasing basis.

Foreign trade of Cuba, 1921 to 1924

Countries of destination and of origin	1921	1922
EXPORTS		
United States.....	\$222,963,217	\$260,609,159
Spain.....	2,513,923	3,076,336
France.....	4,900,175	7,682,329
United Kingdom.....	26,533,150	37,964,250
Germany.....	458,157	576,692
Other countries in America....	5,803,512	8,805,622
Other countries in Europe....	4,055,875	3,435,066
All other.....	10,833,411	3,328,285
Total.....	\$278,061,430	\$325,477,739

IMPORTS		
United States.....	\$263,515,430	\$120,258,858
Spain.....	13,654,172	8,356,437
France.....	9,356,096	5,958,541
United Kingdom.....	17,067,867	9,106,060
Germany.....	5,374,980	3,547,154
Other countries in America....	23,391,937	16,701,796
Other countries in Europe....	6,750,039	4,374,683
All other.....	15,292,048	12,000,403
Total.....	\$354,402,569	\$180,303,932

Countries of destination and of origin	1923	1924
EXPORTS		
United States.....	\$367,345,910	\$361,468,413
Spain.....	1,578,567	1,350,419
France.....	2,584,106	4,248,900
United Kingdom.....	32,407,541	49,261,954
Germany.....	629,639	1,408,384
Other countries in America....	11,071,888	8,767,338
Other countries in Europe....	4,646,489	5,543,563
All other.....	810,503	2,020,029
Total.....	\$421,074,643	\$434,069,000

IMPORTS		
United States.....	\$181,717,272	\$192,041,848
Spain.....	13,213,009	14,533,621
France.....	8,389,827	9,510,266
United Kingdom.....	12,970,503	12,267,724
Germany.....	7,937,582	9,804,527
Other countries in America....	23,246,496	26,638,206
Other countries in Europe....	8,359,431	12,817,093
All other.....	13,116,986	12,912,300
Total.....	\$268,951,106	\$290,525,585

The trade figures reflect, in a measure, the favorable year which Cuba enjoyed in 1924. The sugar crop of 1923-24 reached a record figure and was generally marketed at favorable prices, although the monetary return, on account of lower prices, was not so great as on the smaller crop for the previous year. In view of large world crops, the price of sugar dropped steadily toward the close of the year so that the marketing of the first of the 1924-25 crop did not bring as satisfactory prices as were received for the previous crop. Although at times during the year business was impeded by labor difficulties and at least one political disturbance, the effect was temporary, and

most lines enjoyed a satisfactory year. An index of the increased activity in business circles in Cuba during 1924 is furnished by the statistics of clearings of the Habana clearing house, which amounted to \$1,-062,566,289, an increase of 27 per cent over the figure for 1923 and 73 per cent higher than those for 1922.

Philippine Sugar Exportation

(BUREAU OF COMMERCE AND INDUSTRY)

Direct Exportation of Sugar from Philippine Ports

Manila, February 1 to 28, 1925, inclusive:	Kilos
To United States (refined).....	564,780
To Hongkong (raw).....	1,155,494
To United States (centrifugal).....	16,680,024
To China (raw).....	158,071

Iloilo, February 1 to 28, 1925, inclusive:	
To United States (centrifugal).....	43,984,266
To Japan (raw).....	814,658
To China (raw).....	1,347,019
To Hongkong.....	57,639

Cebu, February 1 to 28, 1925, inclusive:	
To Hongkong.....	245,310
Zamboanga, February 1 to 28, 1925, inclusive:	
To other British East Indies	
(raw).....	2,318
Jolo, February 1 to 28, 1925, inclusive:	
To other British East Indies...	4,380

Total..... 65,013,959

Sugar Products Exports

Exports from the United States of sugar products and commodities in the manufacture of which sugar is a principal item during the first three months of 1925 included the following, according to the returns of the Department of Commerce:

	Quantity	Value
Molasses, gals.....	275,577	\$68,326
Syrup, including		
maple, gals.....	1,027,833	408,290
Confectionery, lbs....	3,265,700	617,696
Chewing gum, lbs....	892,481	402,034
Honey, lbs.....	1,524,030	163,911
Glucose, lbs.....	32,061,866	1,325,992
Grape sugar.....	445,563	18,628

The Cuba Railroad Company Dividend

The Cuba Railroad Company declared a dividend of \$1.30 per share on the common stock, payable June 30 to stockholders of record June 25. The Consolidated Railroads of Cuba have declared the third quarterly dividend of 1½ per cent on the preferred stock, payable July 1 to stockholders of record June 15. The Cuba Company declared a quarterly dividend of \$1 per share on the common stock, payable June 1 to stockholders of record May 23.

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

Securities:	Bid	Asked
Republic of Cuba Interior Loan 5% Bonds.....	92	94
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	97¾	99¼
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	97½	...
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	88½	...
Havana City 1st Mortgage 6% Bonds.....	100	110
Havana City 2d Mortgage 6% Bonds.....	90	100
Cuba Railroad Preferred Stock.....	81	86
Cuba Railroad 1st Mortgage 5% Bonds of 1952.....	87¾	88
Cuba Company 6% Debenture Bonds.....	85	...
Cuba Company 7% Cumulative Preferred Stock.....	85	...
Havana Electric Railway Co. Consolidated Mortgage 5% Bonds.....	92½	93
Havana Electric Railway Light & Power Co. Preferred Stock.....	108	...
Havana Electric Railway Light & Power Co. Common Stock.....	145	148
Cuban American Sugar Co. Preferred Stock.....	93¾	97
Cuban American Sugar Co. Common Stock.....	29½	29½
Guantanamo Sugar Co. Stock.....	5	5½

The Sugar Industry

European Crop

Interest among members of the sugar trade in Vienna and abroad in the question of possible sugar production during the coming season is so keen that repeated requests for estimates or opinions of European beet sugar production in 1925-26 are being received. It is obviously impossible to make a reliable estimate of the results to come from a crop that has just been put into the ground and that depends so largely upon weather conditions during the next four months as does the sugar beet.

What is possible, is to show what may be considered a reasonable expectation in the matter of output, based merely upon the average yield of recent previous years and the acreage sown which is now known with fair accuracy. Even in the matter of sowings precise information as to a number of countries is lacking, but reasonably exact statistics for the principal producing countries are available. Applying the average yield of the past three seasons for each of the various countries to the 1925 acreage reported for that country we get the following as a fictive yield for the 1925 crop, the figures being expressed in thousands of acres and thousands of metric tons, raw sugar value:

Country	Acres sown (000 omitted)	Sugar yield based on average 1922-24, metric tons (000 omitted)
Germany.....	885	1,440
Dantzic.....	10	20
Czechoslovakia.....	741	1,343
Austria.....	47	67
Hungary.....	161	176
France.....	457	703
Belgium.....	183	338
Netherlands.....	166	273
Poland.....	383	432
Denmark.....	94	140
Sweden.....	99	142
Italy.....	235	320
Spain.....	173	211
Jugoslavia.....	86	76
Rumania.....	128	107
Bulgaria.....	30	23
Switzerland.....	3	7
England.....	49	50
Finland.....	2	1

Total Europe, exclud- ing Russia.....	3,932	5,869
Russia.....	1,100	594
Total Europe, Russia included.....	5,032	6,463

On the above basis a decline of 657,000 tons, raw sugar value, from the 7,120,000 tons produced in 1924-25 is to be expected should this season bring forth an average yield.

Canadian Sugar Movement

Canadian sugar statistics for the four weeks ending April 25, issued from Ottawa, show improvement in the trade position as compared with the corresponding period in 1924, although the movement was less than in the four weeks of 1925 preceding. Meltings were larger than in April, 1924, by 8,000 tons. Refined shipments showed an increase of the same amount, but were 7,000 tons less than in the four weeks ending March 28, this year. Raw stocks on April 25 were about the same as on March 28, but refined stocks were larger by 1,000 tons.

Following are the figures, in tons of 2,240 pounds:

	RAWS	
	1925	1924
Stock, March 28.....	14,613	28,041
Receipts, month.....	34,783	25,052
Receipts, year.....	130,720	133,406
Meltings, month.....	35,130	133,406
Meltings, year.....	129,601	110,484
Stock, April 25.....	14,266	26,179

	REFINED	
	1925	1924
Stock, March 28.....	31,791	27,077
Mfd., month.....	34,470	27,531
Mfd., year.....	130,205	103,799
Shipped, month.....	33,585	25,416
Shipped, year.....	131,895	101,237
Stock, April 25.....	32,677	29,192

Refined exports during March showed increase over the same month last year, amounting to 17,054 long tons, valued at \$2,522,269, against 9,163 tons worth \$2,029,558 in March, 1924. Included in the exports were 14,563 tons to the United Kingdom, 383 tons to the British West Indies and Guiana, and 1,900 tons to Uruguay.

Cuban Sugar Campaign Prolonged

Trade Commissioner C. A. Livengood, Havana, reports to the Department of Commerce:

Recent rains have affected the operations of Cuban sugar mills and a number have been temporarily suspended. Seventeen mills have completed their campaign for the present crop, leaving 166 on the active list as against 102 a year ago, which indicates the large amount of cane still available. Of the new sugar crop, 3,314,550 long tons had arrived at ports for exportation on May 2, and 2,154,230 long tons had been exported; while stocks in the island were estimated at 1,197,332 long tons. When compared with figures for the corresponding date of last year, an increase of 443,929 tons in arrivals at ports, and 253,947 tons in exportations is shown.

PRICE TENDENCY DOWNWARD—LABOR SITUATION UNSETTLED

The tendency of prices has been downward. Whereas the average price in warehouse, Havana, for raw sugars was 4.812 cents per pound for the month of March, 1924, and that for March, 1925, was 2.653 cents, and the price had dropped to below 2.5 in the latter part of April. The unfavorable effect of low sugar prices continues to depress business operations, and traveling salesmen returning from the interior report increases in the number of bad accounts, with some tendency toward an increase in suspension of payments.

No change has occurred in the labor situation on the Cuban Northern and the Cuba Railroads; the passive strike by the workers continues, although an open strike has not been declared. As many sugar mills will terminate operations in a few weeks, a strike would cause less damage than would have been the case earlier in the season.

Value of Sugar Exports

The value of refined sugar exported in March was \$1,990,871, an average of 4.10 cents a pound, which was also the average for February. The total value of sugar exported in the first quarter of 1925 was \$3,997,927.

Gain of 70 Per Cent in First Quarter's Exports of Sugar

An analysis of the official returns of refined sugar exported from the United States during the first quarter of 1925 shows an increase of 19,628 short tons, or 70 per cent, over the corresponding quarter of 1924, the monthly figures for the two years being as follows:

	Tons of 2,000 lbs.	
	1925	1924
January.....	7,903	3,919
February.....	15,801	8,043
March.....	24,029	16,143
Total.....	47,733	28,105
Total long tons.....	42,618	25,093

Practically the entire amount of this increase was accounted for by larger exports to the United Kingdom and to South America, amounting in the former case to 7,355 tons more than last year and in the latter to 12,526 tons more. Minor gains in exports to other quarters were offset by decreases in exports to the continent of Europe and the West Indies. Of the increased movement to South America all but about 2,240 tons was further accounted for by larger shipments to Argentina, the increase in exports to that country being 10,282 tons.

In business with continental Europe a net decline of 1,235 tons was recorded, slight gains in exports to Greece, Norway and the Netherlands being overborne by a decrease of 1,800 tons in those to France.

Exports in March were roundly 50 per cent larger than in the corresponding month last year, but were 11,400 tons less than in March, 1923. Total exports for the three months ending March 31 in the four years preceding 1924 were also materially larger than those of this year, as follows: 1920, 175,440 tons; 1921, 61,055; 1922, 260,526; 1923, 73,683.

The figures of exports for 1925 (month and quarter) are as follows in detail, in tons of 2,000 pounds:

To	Month	Quarter
Great Britain.....	6,252	9,642
Irish Free State.....	.....	728
France.....	.....	2,129
Greece.....	1,161	1,326
Other Europe.....	457	1,403
Canada.....	446	1,309
Newfoundland.....	607	1,528
Panama.....	683	1,167

To	Month	Quarter
Other North America....	329	955
British West Indies.....	323	547
Other West Indies.....	365	1,160
Argentina.....	7,510	12,477
Uruguay.....	4,686	10,220
Bolivia.....	356	1,241
Chile.....	321	745
Other South America....	43	253
Africa.....	464	846
Asia and Oceania.....	26	57
Total.....	24,029	47,733

American Interests Establishing Sugar Industry in Canada

According to information received, the Utah-Idaho Sugar Co., through their general manager at Salt Lake City, has announced that the Company will commence construction at once on a million dollar sugar factory at Raymond, and further, that 6,000 acres of beets, with production of between 70,000 and 90,000 tons, have been signed up by irrigation farmers on Southern Alberta projects. It is reported that the sugar company will move a plant from the Yakima Valley, Washington, where insect pests from desert lands have made the production of beets unprofitable, and that if the Raymond plant proves successful, two more factories will be erected in the irrigated districts. The Raymond factory, it is asserted, will have an initial capacity of 50,000 tons of beets, and be ready to slice beets by October, 1925.

The United States interests responsible for this move have, for some time, been considering the establishment of this industry in Western Canada.

The introduction of this agricultural phase into the farming industry of the irrigated lands of Southern Alberta should be of the greatest encouragement to the farmers in view of the improvement wrought in many districts of the United States through the general production of beets. The general feeling is, in light of United States history, that it will prove one of the greatest factors in the prosperity of this area, and it is clear there are wide possibilities for its expansion.

Apart from the revenue derived from the actual sale of beets, to which the area has proved so well adapted, and for which a ready market is assured, a thriving livestock industry is capable of being developed, hand in hand with beet sugar production, the

various factory by-products making the finest feed for cattle, sheep and hogs. There is available, tributary to the irrigated lands, a large area of unoccupied pasturage on which farmers can maintain their stock during the summer months, after which they are brought in to consume the by-products of the sugar factory. Farmers may thus co-operate in the handling of their herds, one man taking care of numerous small herds.

At the present time, in Western Canada, from Ontario to the British Columbia coast, there is but one sugar refinery which is located on the Pacific and manufactures from imported cane. It is estimated that the sugar consumption of Alberta is well over 40,000,000 pounds annually, of Saskatchewan 50,000,000 pounds, of Manitoba 45,000,000 pounds and of British Columbia 35,000,000 pounds, a total for Western Canada of approximately 170,000,000 pounds. This domestic consumption alone would keep in operation five such sugar beet factories as it is proposed to erect in Raymond.

Hershey Buys San Antonio

It is reported the Hershey Corporation has purchased Central San Antonio, at Madruga, Havana province, from the Gomez Mena family for the sum of \$4,500,000. The production of this mill for the past five crops was as follows: 1919-20, 153,335 bags; 1920-21, 201,034; 1921-22, 143,013; 1922-23, 130,594; 1923-24, 172,976. Production for the present crop is estimated at 200,000 bags. It has not yet been announced whether the Hershey Corporation will continue to operate San Antonio or will grind its cane at Central Hershey, the capacity of which is to be doubled. A mill consisting of double crusher and five mills, 36" x 84" has been purchased from Cail, and Walsh and Widener cross drum boilers are to be installed.

Petree and Dorr Move

Petree & Dorr, Engineers, Inc., announce the removal of their offices in New York City from the twelfth floor of the Munson building, 67 Wall Street, to the eighth floor of the same building, suite 811.

Revised Estimate of Philippine Sugar Production for 1924-1925 Crop†

	1923-1924 Crop		Estimate 1924-1925 Crop	
	Piculs	Metric Tons	Piculs	Metric Tons
NEGROS CENTRIFUGAL CENTRALS:				
Bacolod-Murcia Milling Co.....	295,698	18,702	594,000	37,570
Binalbagan Estate, Inc.....	373,769	23,640	504,000	31,878
Central Azucarera de Bais.....	192,156	12,154	260,865	16,500
Central Bearin.....	104,393	6,603	145,000	9,171
Central Azucarera de La Carlota.....	541,681	34,261	700,000	44,275
Central Palma.....	63,232	4,063	75,000	4,743
De la Rama Centrals—				
a. Bago.....	39,525*	2,500	25,000	1,582
b. Talisay.....	9,992*	632	10,000	638
c. Escalante.....	5,929*	375	20,000	1,265
Hawaiian-Philippine Co.....	440,801	27,881	700,000	44,275
Isabela Sugar Co., Inc.....	186,718	11,810	323,000	20,430
Ma-ao Sugar Central Co.....	387,745	24,525	498,000	31,498
North Negros Sugar Co.....	234,702	14,845	316,200	20,000
Nueva Apolonia.....	1,000*	63	1,000	63
San Carlos Milling Co.....	250,870	15,868	316,204	20,000
San Isidro Central.....	60,818	3,847	70,000	4,428
Talisay-Silay Milling Co.....	359,397	22,732	520,000	32,890
Victorias Milling Co.....	199,505	12,619	237,150	15,000
	3,748,931	237,120	5,315,419	336,206
Muscovados.....	181,815	11,500	158,102	10,000
Total production in Negros.....	3,930,746	248,620	5,473,521	346,206
LUZON CENTRIFUGAL CENTRALS:				
Calamba Sugar Estate.....	402,934	25,486	400,000	25,300
Central Carmen.....	52,696	3,333	70,000	4,428
Central Phoenix.....	20,000*	1,265	24,000	1,518
Mabalacat Sugar Co.....	40,000*	2,530	45,000	2,846
Pampanga Sugar Development Co.....	179,486	11,352	380,000	24,035
Pampanga Sugar Mills.....	399,218	25,250	711,459	45,000
Philippine Sugar Estates Dev. Co.....	11,660	737	30,000	1,898
Roxas Mill (Nasugbu).....	14,229	900	20,000	1,265
	1,120,223	70,853	1,680,459	106,290
Muscovados.....	444,767	28,132	525,000	33,207
Total production in Luzon.....	1,564,990	98,985	2,205,459	139,497
PANAY CENTRIFUGAL CENTRALS:				
Asturias Sugar Central.....	56,188	3,554	127,000	8,032
Capiz Central.....			20,000	1,265
	56,188	3,554	147,000	9,297
Muscovados.....	292,485	18,500	318,200	20,125
Total production in Panay.....	348,673	22,054	465,200	29,422
MINDORO CENTRIFUGAL CENTRAL:				
Mindoro Sugar Company.....	73,580	4,654	94,861	6,000
CEBU (Muscovados only).....				
	28,237	1,786	31,620	2,000
Total Centrifugal Production.....	4,998,922	316,181	7,237,739	457,793
Total Muscovado Production.....	947,304	59,918	1,032,922	65,332
Total P. I. Sugar Production.....	5,946,226	376,099	8,270,661	523,125

†Compiled by Philippine Sugar Association, Manila, March 14, 1925.

*Estimate.

†Not yet in operation.

—Sugar Central and Planters News.

A 20-Year-Old Forecast

SET 2,000,000 TONS AS MAXIMUM CUBAN
OUTPUT BY 1924-25

According to *Facts About Sugar*, F. O. Licht's Monthly Report for January 16, 1904, contained an article quoting certain predictions regarding the future of Cuba as a producer of sugar and of the United States as a consumer. In view of actual developments within the 20-year period referred to, it is interesting to note that the commentator made a very accurate estimate as to the increase of consumption in the United States, but a very inadequate guess as to the growth of production in Cuba. The article is as follows:

In the New York trade newspaper of the 12th instant there appears a paragraph from which we extract the following: An authorized agent of the Cuban government and formerly secretary of the Pan-American Congress, Fidel G. Pierra, at the yearly banquet of the Boston Commercial Club, spoke as follows: "Cuba is still an undeveloped land, for of its area of 29,000,000 acres 13,000,000 are still untouched, and at present only 1,000,000 acres are cultivated. Half this area is cultivated with cane and the 82,000 acres cultivated with tobacco only correspond to 8 per cent of the extent which is utilized for land products. There is certainly enough land in Cuba to produce a sugar harvest of 6,000,000 tons, and from this fact the conclusion is drawn, that the sugar produced on this island may quite possibly reach these figures if only the necessary stimulations are given, such as the moderation of the import duty raised by the United States and the supplying of the required money.

"It will be perceived, however, at the same time, that the cultivation of raw sugar, as every other kind of cultivation, requires not only land and money but also workmen. We have the land, perhaps it is possible to procure the money, but the same cannot be said regarding the workmen. Emigration could not supply enough workmen in a short time to satisfy such a vastly increased demand. We have indeed enough workmen in Cuba at present to manage a harvest of 1,000,000 tons, and with difficulty a harvest of 1,500,000 tons. It is not possible to increase the sugar pro-

duction beyond this figure without a considerable addition to the population of the island."

Even if it is accepted that under the present conditions the production may increase more rapidly than in former normal years, it would still require a period of about 20 years to raise the sugar production of the island to 2,000,000 tons. The possibility that Cuba may ever supply the entire quantity of sugar used in the United States appears quite out of the question. Since the year 1862 this consumption has doubled itself regularly every 20 years, and the consumption for last year is estimated at 2,600,000 tons. Should the consumption further increase in like proportions, in 20 years it would be at least 5,000,000 tons yearly, while Cuba at the same time could only produce 2,000,000 tons. The American beet growers and raw sugar producers need not therefore fear the competition of Cuba; even if sugar from that country is granted admission on the most favorable conditions, the American sugar producers will always have a large outlet for their goods. Cuba can certainly produce more cheaply, but for many years the island's ability to produce will be limited on account of the want of workmen, and the offer of Cuban sugar will increase far more slowly than the consumption of the United States. There is no prospect that emigration to Cuba will attain that dimension which would be necessary for a corresponding increase in the sugar production.

Guantanamo Co. Dividend

The Guantanamo Sugar Company has declared a dividend on the preferred stock payable July 1 to stock of record June 15 at the regular quarterly rate of \$2 a share.

Sugar Company Dividends

The regular quarterly dividend of \$1.25 a share on the capital stock has been declared by the Punta Alegre Sugar Company, payable May 15 to stock of record May 1.

The New Niquero Sugar Company has declared the regular quarterly dividend of \$2 a share, payable May 1 to stock of record April 25.

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated April 24, 1925. Since that time we have had very favorable circumstances tending to improve the sugar situation, chief of which has been the demand from our refiners for raw sugars, owing to a steady demand for refined; and, secondly, the continued interest in the market of the United Kingdom, Canada and other buyers outside of the United States. Under ordinary conditions, these circumstances would have had the tendency of putting up prices, but all this favorable news has been completely overshadowed by the tremendous crop now coming to an end in Cuba. Several reports received from the Island tend to show that the crop will reach 5,000,000 tons. More than half of the Cuban factories have finished working their crops and practically all show a very large increase over last year's outturn. Under such circumstances, the trade has been unable to work the market upward and it is only the firm resistance on the part of Cuban holders not to offer in large quantities that has made it possible to keep prices comparatively steady, with occasional small fluctuations up and down.

At the time of our last review, Cuban sugars were quoted at 25 $\frac{1}{8}$ c c. & f. and the market slowly declined until 21 $\frac{1}{2}$ c c. & f. was touched on the 30th of April. At this price there was considerable resistance on the part of sellers, not only Cuban, but Porto Rican and Philippine as well, and although buyers were in the market at 21 $\frac{1}{2}$ c c. & f. (equal to 4.27c duty paid), they secured only moderate quantities. During the middle of May the market became more active and firmer, and as this brought in some increased buying on the part of refined sugar buyers prices shot upward rather sharply to 2-11/16c c. & f. However, this advance was too quick to be maintained and prices declined until they again reached the 21 $\frac{1}{2}$ c c. & f. basis, with refiners buyers at this quotation for prompt shipment, but with some premium obtainable for June and July shipments. Philippine sellers have shown a willingness to meet buyers' views and have sold sugar recently, for delivery as late as August, at the equivalent of 2-21/32c c. & f. for Cubas. While the consumption of refined should show some increase this year, it can hardly be expected that it will be large enough to absorb the excess production of Cuba, even with the increased purchases noted for countries outside of the United States, and some Cubas will have to be carried over to next crop.

Shipments from the Philippines show a tendency to increase and there are now over 100,000 tons of these sugars afloat to the U. S. Atlantic Ports, the larger part owned by operators.

Our advices some weeks ago from Europe were that Germany and some of the European countries were inclined to plant an area to beet roots somewhat less than last year, but later advices state that, with the exception of France, the principal countries of Europe will show an acreage full up to that of last year. In this connection, we give below our recent cable in regard to Germany.

GERMANY.—Factories' Estimate.—(By Cable).—May 18, 1925.—The Factories estimate the sowings in Germany at 366,859 hectares, against 352,655 hectares last year. Based on these sowings, the sugar crop of Germany is estimated at from 1,550,000 tons to 1,650,000 tons, against last year's crop of 1,590,000 tons.

Preferential duties into the United Kingdom have been reduced, as will be noted by the following:

Cables from the United Kingdom state that the differential duty, that is, the preference allowed to sugars produced in the British Empire, has been increased from 1s 11d per 112 lbs. to 4s 3d for 112 lbs. This covers sugars testing 98° and above. The comparison will now be as follows:

NEW RATES.—General Tariff.....		11s	8d	(2.50c	per lb.)
Preferential Duty.....		7s	5d	(1.59c	" "
Preference.....		4s	3d	(0.91c	" "
The new English preference on 96° test sugar is 3s 8 $\frac{3}{4}$ d, about 0.80c per lb.					
OLD RATES.—General Tariff.....		11s	8d	(2.50c	per lb.)
Preferential Duty.....		9s	9d	(2.09c	" "
Preference.....		1s	11d	(0.41c	" "

Canada allows British Empire grown sugar a differential of .96c a lb. for 98° test and above, while the preference on 96° test is .837c per lb.

REFINED.—The refined sugar situation has been unsettled during most of the period under review. The greater number of our refiners had worked quite full during the month of April and accumulated quite a stock of refined sugar, which they distributed throughout the country in many consignment markets. Whenever sugars were moving slowly at these consignment points, refiners showed a tendency to cut prices slightly and this made an irregular market, in that sugars were obtainable at cheaper prices throughout some parts of the country than were possible at the refining centers. Owing to these conditions, refined sugar shows a decline for the period under review, and it is now possible to buy at 5.50c from some refiners.

Another feature that has been interesting has been the increased demand for refined sugar for export, chiefly to United Kingdom ports. While there have been no large individual orders placed, there have been numerous moderate sized lots sold, which have, in total, amounted to a good-sized volume. Present prices for export are 3.45c for prompt and 3.50c for June and July shipments, both quotations net cash, in bond.

New York, N. Y.

May 22, 1925.

Mexico to Revive Sugar Industry

The Mexican Government is now using the co-operative plan in its effort to revive the sugar industry in the State of Morelos, which produced sugar valued at an average of 14,000,000 pesos annually until the outbreak of the Zapata revolution which destroyed all the sugar mills.

It is reported the Government in combination with the Honolulu Iron Works, plans to finance the farmers in order to resume sugar planting.

The Government will advance 50 per cent of the costs to the farmers who will be given three shares for each hectare of sugar land made productive.

It is estimated that sugar will continually average twenty centavos per kilo and that 1,000 tons may be produced from each hectare (about two and one half acres).

A central sugar mill will be established in Morelos and the Honolulu Iron Works plans to spend \$3,000,000 in establishing the mill. This company negotiated the project with Morelos State some time ago, but owing to the non-recognition of Mexico by the United States, it failed. The promoters have again presented the plans to the Department of Agriculture.

The cost of planting and cutting sugar cane is estimated at 200 pesos per hectare, giving a profit of 900 pesos per hectare a year. The proposed mill will have a capacity of 6,000 tons daily.

U. S. A. Beet Sugar

The outstanding feature of the 1924 beet sugar campaign in the United States, as reported by the sugar producers to the United States Department of Agriculture, is the record production of 1,090,000 short tons of sugar. In only two previous years has the production been over one million short tons. The crop of 1924 exceeds the former banner year of 1920 by 1,000 short tons.

The past record of production for beet sugar was exceeded, notwithstanding the fact that the acreage was smaller and the tonnage of beets harvested and worked less, than in the years of 1920 and 1921.

This large production is mostly accounted for by the higher sugar content and the larger per cent of extraction, which was more than 1 per cent over that of any previous year.

Australia Grows Surplus of Sugar

It is reported that the present sugar season will be a record for Australia and for Queensland particularly—the State which grows most of the sugar cane. The highest production previously was in 1917, when the total yield of sugar in Queensland was 307,000 tons. This year the estimated production will be in the vicinity of 388,000 tons in this State. This, with 22,000 tons in New South Wales and 3,500 tons in Victoria (beet sugar) will give a large surplus of production over local consumption.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 24 de Abril de 1925. Desde entonces hemos tenido favorables circunstancias con tendencia a mejorar la situación del azúcar, la principal siendo la demanda de nuestros refinadores por azúcares crudos, debido a una continua demanda por azúcar refinado, y en segundo lugar por el continuo interés en el mercado de la Gran Bretaña, en el Canadá y por otros compradores fuera de los Estados Unidos. Bajo condiciones ordinarias, estas circunstancias hubieran tenido la tendencia de hacer subir los precios, pero todo este estado favorable ha sido completamente desconcertado por la tremenda zafra que está ahora llegando a su fin en Cuba. Varios informes recibidos de Cuba indican que la zafra llegará a 5,000,000 de toneladas. Más de la mitad de las fábricas de azúcar en Cuba han terminado sus operaciones y prácticamente todas muestran un grande aumento sobre la producción del año pasado. Bajo tales circunstancias, el comercio no ha podido hacer subir los precios del mercado, y solamente la firme resistencia por parte de los tenedores de azúcar de Cuba en no ofrecer grandes cantidades es lo que ha hecho sea posible sostener los precios comparativamente estables, con pequeñas fluctuaciones de vez en cuando de alza y baja.

En ocasión de nuestra última reseña los azúcares de Cuba se cotizaban a 25/8c. costo y flete y el mercado bajó poco a poco hasta que llegó a 2 1/2c. costo y flete el 30 de Abril. A este precio hubo bastante resistencia por parte de los vendedores, no sólo de Cuba sino también de Puerto Rico y las Filipinas, y aunque los compradores acudieron al mercado a 2 1/2c. costo y flete (equivalente a 4.27c. derechos pagados), sólo consiguieron moderadas cantidades. Durante mediados de mayo el mercado se hizo más activo y firme, y como esto ocasionó algún aumento en las compras de parte de los compradores de azúcar refinado, los precios subieron algo bruscamente a 2-11/16c. costo y flete. Sin embargo, este aumento fué demasiado repentino y los precios volvieron a bajar hasta que volvieron a llegar a 2 1/2c. base costo y flete, con compradores de refinado a esta cotización para pronto embarque, pero con algún descuento obtenible por embarques para junio y julio. Los vendedores de las Filipinas han mostrado estar dispuestos a acceder a las miras de los compradores y han vendido azúcar recientemente, para la entrega tan tarde como agosto, al equivalente de 2-21/32c. costo y flete por el azúcar de Cuba. Aunque el consumo de azúcar refinado debería mostrar algún aumento este año, no es de esperarse que será suficiente grande para absorber el exceso de producción de Cuba, aun con el aumento de compras que se noten para países fuera de los Estados Unidos, y algún azúcar de Cuba tendrá que llevarse para la próxima zafra.

Los embarques de las Filipinas muestran tendencia a aumentar y hay ahora más de 100,000 toneladas de estos azúcares a flote con rumbo a puertos del Atlántico en los Estados Unidos, la mayor parte propiedad de los manipuladores.

Las noticias que hemos recibido hace algunas semanas de Europa eran que Alemania y algunos de los países europeos estaban inclinados a plantar una superficie de remolacha algo menor que el año pasado, pero noticias posteriores manifiestan que, a excepción de Francia, los países principales de Europa cultivaran una superficie tan extensa como la del año pasado. Respecto a esto, reproducimos a continuación el cablegrama recibido hace poco acerca de Alemania.

ALEMANIA.—Cálculo de las Fábricas.—(Por Cable)—Mayo 18, 1925.—Las fábricas calculan las siembras de remolacha en Alemania en 366,859 hectáreas, contra 352,655 hectáreas el año pasado. Basados en estas siembras, se calcula que la cosecha de azúcar de Alemania será de 1,550,000 toneladas a 1,650,000 toneladas, contra la cosecha del año pasado de 1,590,000 toneladas.

Los derechos preferenciales de la entrada de azúcar en la Gran Bretaña han sido disminuidos, como se observará por lo siguiente:

Noticias por cable de la Gran Bretaña manifiestan que el derecho preferencial, es decir la preferencia otorgada a azúcares producidos en el Imperio Británico, ha sido

aumentada de 1s 11d las 112 lbs. a 4s 3d por 112 lbs. Esto comprende azúcares polarización 98 grados. La comparación será ahora como sigue:

<i>Nuevos Derechos.</i> —Tarifa General.....	11s 8d (2.50c. por lb.)
Derecho Preferencial.....	7s 5d (1.59c. " ")
Preferencia.....	4s 3d (0.91c. " ")
La nueva preferencia inglesa en azúcar polarización 96 grados es 3s 8¾d, 0.80c. por libra aproximadamente.	
<i>Antiguos Derechos.</i> —Tarifa General.....	11s 8d (2.50c. por lb.)
Derecho Preferencial.....	9s 9d (2.09c. " ")
Preferencia.....	1s 11d (0.41c. " ")

El Canadá concede al azúcar producido en el Imperio Británico un diferencial de .96c. la libra por polarización de 98 grados o más, mientras la preferencia por polarización 96 grados es .837c. por libra.

Azúcar Refinado.—La situación del azúcar refinado ha sido incierta durante la mayor parte del período bajo reseña. La mayoría de nuestros refinadores han estado ocupados durante el mes de abril y han acumulado bastantes existencias de azúcar refinado, las cuales han distribuido por el país en muchos mercados a consignación. Siempre que el azúcar circulaba despacio en estos puntos de consignación, los refinadores mostraban tendencia a rebajar algo los precios y esto hacía que el mercado fuera irregular, pues el azúcar se conseguía a precios más bajos en algunas partes del país de lo que era posible en los centros refinadores. Debido a estas condiciones, el azúcar refinado muestra una baja por el período bajo reseña, y ahora se puede comprar azúcar a 5.50c. de algunos refinadores.

Otra cosa que ha sido interesante ha sido el aumento en la demanda del azúcar refinado para la exportación, principalmente a puertos de la Gran Bretaña. Aunque no ha habido pedidos grandes de individuos, se han vendido numerosos lotes de buen tamaño, los cuales en total han aumentado a un volumen de buen tamaño. Los precios para la exportación al presente son 3.45c. para pronta entrega y 3.50c. para embarques en junio y julio, ambas cotizaciones neto al contado, en depósito.

Nueva York, mayo 22, 1925.

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A Group of Cuban Pineapples

THE CUBA REVIEW

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VOLUME XXIII

July, 1925

NUMBER 8

Cuban Government Matters



Com. Rogerio Zayas Bazan

Secretary of the Interior

Commandante Rogerio Zayas Bazan has been appointed Secretary of the Interior by the Cuban President. Promptly upon his accession to office, Sr. Zayas Bazan began an active campaign against gambling, the illicit carrying of arms, and other vices. Undoubtedly moral conditions in Cuba will

be greatly improved during his term of office.

Appropriation for Public Works

By virtue of several executive decrees recently promulgated, the sum of \$655,580.15 has been appropriated for completing various public works. Of this amount \$529,994.95 is apportioned for constructing and repairing highways, the allotments being made in the following manner: For rebuilding the highway from Holguin to San Pedro de Cacocum, \$50,000; for repairing the highway from Cienfuegos to Manicaragua, \$240,000; for the road from Havana to Guanabo, \$100,068.01; for repairing the road from Santiago de Cuba to San Luis, \$70,000; for the Cainito to Capeilanas highway via Ceiba de Agua, Province of Havana, \$60,000; and for the construction of a section of the Cano highway, \$9,926.94.

An appropriation of 100,000 pesos has been made for repairing the Cienfuegos aqueduct and improving the water supply of that city. A similar decree allots a credit of 309,600 pesos for the reconstruction of the Government telegraph lines, and renovating the central telegraph offices in Havana, Santiago de Cuba, Bayamo, and Pinar del Rio, and also for repairing the post offices in the two last-mentioned cities.

U. S. Attaché Reports on Cuban Tariff Plan

The Cuban budget for the fiscal year beginning July 1, which was accepted by the Cuban Congress recently, makes several significant changes in import duties and internal taxes, says Commercial Attaché Jackson in a cable to the Commerce Department.

The duties on luxuries are to be horizontally increased by 10 per cent. and the duties on other commodities by 3 per cent. President Machado is to define the articles to be classed as luxuries.

The existing import duty on gasoline of \$5.875 per 100 gross kilos general, and \$4.70 to the United States is to be repealed and a sales tax of 10c per gallon imposed. The general sales tax is to be increased from 1 to 1½ per cent.

These changes are designed to provide an immediate increase in the revenue, and plans for more thorough tariff revision continue.

Wireless Concession in Cuba Annulled

It is reported that President Machado has annulled the concession granted by the previous administration to the Pan-American Wireless Telegraph & Telephone Company for establishing a public service of international radiographic communication between Cuba and the United States.

The concession granted by President Zayas to the Tropical Radio Telegraph Company for establishing a radio-telegraphic station in the Bay of Nipe, Province of Oriente, has also been annulled.

White Slave Traffic

Executive decree No. 384, dated March 2, 1925, contains the complete resolutions regarding the penalties prescribed for the white slave traffic in Cuba, or for violating in any way the International Convention for the Suppression of White Slave Traffic of September 30, 1921, the International Agreement of May 18, 1904, and the Convention of May 4, 1910, of which Cuba is one of the signatory nations. The full text of the above-mentioned decree is published in the *Gaceta Oficial* of March 18, 1925.

Monetary Circulation During the Year 1924

According to statistics published by the Cuban Government the monetary circulation in the Republic during the year 1924 was as follows:

	Gold Pesos	Silver Pesos
Treasury.....	4,120,000.00	1,558,000.00
Banks.....	4,291,947.00	1,933,955.00
In the hands of individuals..	28,692,818.00	8,875,545.00
Total.....	37,104,765.00	12,367,500.00
	Nickel Pesos	Paper Money Pesos
Treasury.....	233,220.00	14,881,000.00
Banks.....	277,539.96	46,594,135.00
In the hands of individuals..	1,383,390.95	277,637,897.00
Total.....	1,894,150.91	339,113,032.00

Exports and imports of money during the same year—1924—were as follows:

	Pesos
Imports.....	19,573,000.00
Exports:	Pesos
Paper money..	17,281,116.00
Silver.....	10,000.00
Foreign money, equivalent to.	302,428.23
Total.....	17,593,544.23
Difference in favor of imports.....	1,979,455.77

General Crowder to Return to Cuba

It is reported that Major General Enoch H. Crowder, Ambassador to Cuba, who has been in the United States for medical attention, expects to return to his post in Havana in July.

General Crowder was discharged June 4th from Walter Reed General Hospital, where he has been undergoing a medical survey. He left immediately for New York City to visit friends and from there for a brief vacation trip to Colorado.

Regulations for Nurses

Regulations have been issued by the Cuban Department of Public Health requiring all graduate nurses in the Republic to have their diplomas duly legalized and registered at that Department. Nurses who do not comply with this regulation are debarred from practicing their profession in the Republic of Cuba.

Havana Correspondence

The Administration of General Machado has started in, not only with a flare of trumpets, but with apparent determination to do the many things that long had needed doing, and to do them at once. The members of the President's Cabinet have apparently imbibed a large measure of enthusiasm and determination to start things going. First among these may be mentioned the Secretary of Public Works, Mr. Carlos Manuel de Cespedes, who for some months past has anticipated the present opportunity by working on plans for the development of an extended system of public highways, the main line of which will reach from the extreme western end of Pinar del Rio to Santiago de Cuba and Oriente. With this main highway will be scores of connecting links, bringing all of our cities and seaports on both the north and south coast in touch with the central artery, and thus in communication with the entire Island.

To each Province has been allotted its share of Public Works which include not only road building, but the erection of suitable school buildings only a few of which can be found outside of the City of Havana. With these will come new aqueducts for the conveyance of drinking water from rivers and springs of which, fortunately, there are many that have their sources in underground water coursing through the limestone rock that forms the greater part of the foundation of Cuba. The paving of streets, building of sewers, reservoirs, dams, and other essentials of sanitation planned by the Secretary were submitted on the fifteenth of June to the newly assembled Congress for its consideration and approbation. This will mean work through the Republic for the unemployed, of which, fortunately, there are comparatively few, and it is more than probable that before the work is well underway, laborers will of necessity be brought from other countries.

In addition to the above it is planned also to build a system of avenues and parks that will greatly add to the beauty of this city, relieving at the same time the congestion of traffic which in old Havana results from the rapid increase in the number of automobiles. In this respect Cuba is in advance of all Latin-American countries, and is rather proud of the fact that we have today twice as many motor cars and motor trucks in this little Republic than are found in the entire peninsula of Spain and Portugal combined.

The enthusiasm emanating from the Department of Public Works has apparently inspired all the Departments of Government, especially the Secretary of the Interior, among whose duties are the suppression of gambling, illicit carrying of arms and other forms of vice. The closing of gambling dens and other get-rich-quick schemes began with the first day of Comandante Zayas Bazan assuming office. All foreigners and law breakers have been returned to their respective countries with instructions never to come back. There are some who criticize the rather drastic methods which Comandante Zayas Bazan has adopted, but there is no doubt but what the moral atmosphere of Havana will be greatly improved if he remains in office throughout the allotted term.

Public Instruction, naturally, is very much encouraged over the prospect of having, for the first time in the history of the Republic, suitable buildings in which knowledge can be imparted to the children of the country. Dr. Fernandez Mascaro, formerly a member of Congress from the Province of Oriente, is deeply interested in the possibilities of Public Instruction, and is working with all the enthusiasm of his nature to make a record for efficiency that will increase the progress and welfare of Cuba and redound to his credit in years to come.

At the time of the nomination of President Machado he called the attention, not only of the members of his Cabinet, but the public as a whole, to the fact that the Secretary of the Executive Department, a position which has no equivalent in the United States, would be, in all affairs of Government, his personal representative, and that he would be given authority to speak for the Administration in all matters requiring Presidential attention, thus relieving the excessive strain that otherwise would fall on the President himself. Secretary Viriato Gutierrez has taken the President at his word

and is jumping into the work assigned to him with an interest and enthusiasm that is already giving results.

The Secretary of State, Carlos Manuel de Cespedes, is one of the two Cabinet Members of the old régime that has been retained in office. His thorough familiarity with Cuba's relations abroad, and her interest, political and economical, in various parts of the world, has rendered his services too valuable to permit a change, although it is said that he may in the future be appointed Ambassador representing Cuba at Washington in order to carry on the work of former Ambassador Cosme de la Torriente at the American capital.

The future of the Department of Agriculture up to the present seems somewhat uncertain, since we understand that Secretary Dr. Pereira has accepted the position only provisionally, as he prefers to retire to private life as soon as possible. In this emergency, Dr. Rafael Sanchez Aballi will probably be called on to fill the position of Secretary of Agriculture, which, owing to the economic status of the Island, is one of the most important and vital Departments of the Republic. Unfortunately, Dr. Aballi met with an automobile accident some weeks ago and is still confined to his bed with a rather serious fracture of bones just below his knee. He is a graduate of Lehigh University in Pennsylvania, and is a thoroughly trained and up to date worker, whose assistance to the Government of Cuba will be invaluable if health permits him to take part in the work of general renovation and reform.

Secretary Rafael Iturralde also a member of the last administration and a very able man, has been given the portfolio of War and Navy. No better officer perhaps could have been selected for the position and in this connection the Government is to be congratulated on a decrease of some \$66,000 from the budget of that Department resulting from the retiring of 192 soldiers. This act is applauded since, with all deference to the honorable occupations of both sailors and soldiers, the Republic of Cuba has but very little use for either Army or Navy, since she has no enemies abroad with whom to fight and probably would not be permitted to engage in warfare with a foreign country without the sanction of the United States, as such an act would naturally involve that country in complications that would prove embarrassing to the interests of both Cuba and her protector.

Dr. Jose Maria Barraque, Secretary of Justice, although holding office only a few weeks, has instituted some thorough and excellent reforms in his department. Among these have been elimination of certain judges whose records did not conform to a true conception of justice. According to the Secretary's plans indiscriminate pardons which have frequently disgraced the past Administration will in the future be suspended. All remaining members of the Judiciary have been notified that strict obedience to law and to the precepts of right and justice must be adhered to regardless of social interest or financial standing. Since the days of the first President of Cuba, who sent several men that had been found guilty of atrocious murders to the chair of execution, capital punishment has seldom, if ever, been enforced, and criminals have begun to assume that the death penalty will never again be inflicted in Cuba, no matter what the nature of the crime may be. It is needless to say that Mr. Barraque will have the approval and support of all the decent people in the Island.

Sugar

The season for grinding cane and converting the juice into sugar is practically over, although on the twentieth of June twenty-two mills were still grinding, of which 18 are located in the Province of Oriente and will probably continue throughout the month. Those in other sections of the Island have practically completed their work for this year. Some seven or eight mills located on the North coast of Oriente usually take advantage of the topographical condition of that section of the country which seems to diminish in rainfall during the summer months and permits them to continue grinding until fall, should they desire to do so. The date for the closing of these

latter mills will depend entirely on the amount of cane at their disposal and the inducement to grind that may exist.

The output of sugar up to the present time exceeds 4,900,000 tons, and unless something unexpected happens, there is every reason to believe that the mills of Cuba this year will turn out almost a full capacity crop of 5,000,000 tons. Inquiries in regard to the amount of cane that may be ground next season elicit many different answers and the opinions of most cane growers with the reference to the future seems to be based largely on local conditions that surround the mill or the section of the Island in which it may be located. Hundreds of millions of dollars are invested in the sugar industry and the work must continue, although if the price remains 3 cents per pound, there are some who undoubtedly will give up the game and seek a more profitable investment. There is no doubt, however, among mill owners and planters in regard to the ultimate future of the industry, since the law of supply and demand, if carefully considered, will sooner or later solve economic problems of this kind.

Pineapples

The pineapple shipping season is in full blast and an average of 20,000 crates is leaving Havana every day for northern markets. Fortunately the pine does not demand refrigeration, hence there are no complaints of damaged fruit on arrival in the United States. Pineapples at the present time are said to be netting a little over \$2.00 per crate, which is encouraging to the fruit growers. Those of the San Cristobal district, and still further west in the Province of Pinar del Rio, are very well pleased with the quality of the fruit. These pines have been grown on a dark, grey, sandy loam soil and are superior to those of the old district around Artemisa with its heavy red, clay, soil. Bainoa district, east of Havana, has not sent out as heavy shipments as in the past for reasons which have not yet been determined. The pineapple is one of the most popular fruits in Cuba and as the season grows late, thousands of bright pines constituting the surplus, are brought into the city and sold from push carts at 5 cents a piece or less. The popular eating pine, however, is known locally as the Piña Blanca or White Pine and for eating purposes is superior to any other variety with which we are familiar. These bring as a rule twice the price of the Red Spanish, which is shipped to the North.

We are in the middle of the mango season. Thousands of this luscious fruit lie on the ground under the trees for lack of transportation to market. The street venders with their one horse carts rumble through every section of the capital. Their peculiar mournful song is welcomed by the children, since it means an opportunity to secure a few ripe mangoes at 10c per dozen. It seems rather strange that choice varieties of the mango are not carefully picked, wrapped in tissue paper and sent to the markets of New York, Boston, Philadelphia and Chicago. Philippine mangoes on ice are one of the most delightful fruits grown in the tropics. If once introduced in the northern markets, as were aguacates a few years ago, there is every reason to believe that the taste for the mango would rapidly grow, and would force a demand for them as did the banana in the years gone by throughout the United States and Canada. The price of choice Philipinos in the Havana market averages fifty cents per dozen in the wholesale, and from one tree near Santiago de las Vegas, \$200 worth of mangoes were sold this year.

Mausoleum of Gonzalo de Quesada Dedicated

A patriotic ceremony was held in Havana on the occasion of the dedication of the mausoleum containing the remains of the great patriot Gonzalo de Quesada, who

strove with José Martí for the independence of Cuba. Señor Quesada was the first diplomatic representative accredited from the Republic of Cuba to the United States. He died in 1915 in Berlin while representing his country as Minister Plenipotentiary to Germany.

New Developments in the Henequen Industry

By George Reno

Recent events would seem to demonstrate that the present low price of sugar may be, in some senses of the word at least, a blessing in disguise. Many sugar planters and owners of mills, especially those of comparatively small capacity, are finding it impossible to meet the actual cost of producing raw sugar. The growing of cane, its cultivation, cutting, hauling to the mill, and grinding, is not only hard work, but requires cash capital that runs into the millions of dollars. And when these efforts and expenditures produce no returns, or a possible balance on the wrong side of the ledger, the outlook is discouraging. Hence the search for a more stable or profitable field of industry.

Political refugees from the revolutions in Mexico who came to Cuba many years ago discovered that the famous henequen of Yucatan would do quite as well and even better in the soil of this Island than it did in Mexico. A few sporadic efforts, beginning with almost no capital, were made first in the eastern end of Cayo Romano, in the Province of Camaguey. The suckers were brought from Yucatan and when planted here more than came up to the expectation of the growers. Another effort was made on the low ridge that lies immediately back of the City of Matanzas. There three Germans some twenty years ago planted henequen from suckers that came from Cayo Romano. They gradually increased their fields from the mother plants, introduced decorticating machinery, and eventually prospered, furnishing Cuba during the past quarter of a century, with nearly all of the rope and binding twine required for home consumption. Very little fiber was shipped abroad; in fact, hemp from Manila was imported during the early years to supply this factory with enough raw material to keep it running. It still continues a profitable investment.

As a natural result of the revolutions that followed the fall of Don Porfirio Diaz in Mexico, the henequen industry of Yucatan was greatly damaged, and with the later invasion of Bolsheviki control that took place in Vera Cruz and in Merida, henequen culture and sisal production came to ruin. This situation disturbed the equilibrium of the cordage and binding factories of the United States that had always depended on Mexico for their raw material. The International Harvester Company, of Chicago, probably the biggest consumers of sisal in the world, realizing the danger that threatened, sent agents to look over the field in Cuba, resulting in the purchase of several thousand acres of land suitable for henequen culture along the highway that connects the city of Matanzas with Cardenas, establishing their field headquarters in the latter city. Suckers were secured with considerable difficulty from old plantings in the neighborhood of Nuevitas, Cayo Romano, and Matanzas. As a result of these plantings the International Harvester Co. has a valuable source of supply from which to draw the necessary raw material for their factories.

Some two years ago the Plymouth Cordage Company, the oldest and second largest manufacturers of cordage in the world, with factories near Boston and in Canada, at the suggestion of Mr. George Simmons, one of the officials of that Company, made a careful study of Cuba with reference to its availability for the cultivation of henequen and finally concluded to invest capital in this country as a means of securing future supplies of the raw material.

As a beginning they bought the plantation of Mr. Antonio Teresa, located near the harbor of Nuevitas. This nucleus of first development had been established along the most approved lines and on soil admirably suited to the cultivation of henequen. Modern machinery for decorticating the leaves was built for the Company in Merida and installed on the Nuevitas plantation about a year ago. The services of Mr. Teresa were secured as local manager and the administration has been carefully conducted

by Mr. Simmons and the result of his experiment carefully tabulated with reference to the cost of the various steps in the cultivation of henequen from the first plantings up to the bailing and shipment of the sisal to the home factory. The President of the local Company together with the General Manager, Mr. Teresa, has very kindly placed all of these details at the disposal of the Bureau of Technical Information of the Department of Agriculture. Most of the data, facts, figures, and arguments that will form the new bulletin published by this Bureau have been obtained from this source.

The results as taken from the books of the local Company at Nuevitas are very gratifying and go far toward convincing the writer as well as others who have watched the development, that the cultivation of henequen and the manufacture of sisal can, and will be, one of the greatest industries in the Republic of Cuba, thus removing her economical situation from the misfortune so frequently referred to as "having all her eggs in one basket."

Many sugar planters today, including the owner of several thousand acres of sugar land in the Province of Matanzas, have become deeply interested in henequen culture and have expressed their determination to abandon the sugar industry for that of sisal. Unfortunately those sugar lands comprising hundreds of thousands of acres that through long years were devoted to the growing of cane have exhausted their fertility, as a rule, are not adapted to the growth of henequen owing to the fact that limestone rock, either as an underlying stratum close to the surface, or a soil with limestone pebbles scattered through it is absent. The presence of soft limestone within reach of the roots of the henequen plants is absolutely essential, not to the growth of the plant, but to the strength of the fiber. The old, exhausted cane fields in a course of a few years, through judicious cultivation of legumes, may be brought back to their original fertility, but they will never grow henequen.

As a result of long experience on the part of men who have devoted their lives to the sisal industry, the following essentials have been found necessary for the successful production of sisal. First, the presence of available, soft limestone, within the reach of the roots of the plant. We have in Cuba hundreds of thousands of acres of this kind of land. No careful survey, however, has been made with reference to the acreage, and our knowledge at present is limited to certain areas scattered throughout each one of the six provinces of Cuba, where the required conditions of soil may be found. The second essential for the location of a henequen plantation is the presence at some point of an abundant supply of water, either from flowing springs, that do not dry up during the winter months, or from underground streams, lakes and rivers, which, owing to the coral formation of the Island are fortunately plentiful.

A third essential is easy transportation either by rail or coasting schooners connecting nearby harbors with steamship lines to the United States and England. Another great convenience, at least, is the presence of underground caves quite common in Cuba in which the pulpy waste from the decorticating process can be disposed of and so avoid its accumulation on the surface. It is quite possible that chemists in time may find some use for this waste product, in which case it could be turned into a source of profit. The lands should have a sufficient incline to insure proper drainage. Hills, if not too steep for transportation where the soil conditions are suitable, are available for henequen culture. At the decorticating plant in Matanzas the sisal, fresh from the machine, is dumped into wire baskets descending along cables a distance of several hundred yards from the top of the hill to the land below, where it is spread out in wires and dried.

Once the location for a henequen plantation has been selected, the best point for the installment of the decorticating plant should be chosen. This should be near the water supply by all means. From this nucleus fields are laid out in all directions, and gangs of woodcutters begin the work of clearing the trees and brush. The brush is burned as soon as sufficiently dried and the smaller stumps are grubbed out. The land

is then plowed and platted into fields with roads at convenient places for the collection of leaves so that they may be easily conveyed to the factory.

Arranging for young plants at the present time is important, since there is a rapidly growing demand for suckers. These must be secured from some of the old plantations which are located around Matanzas, Cardenas, and Nuevitas. Suckers from 6 inches to 12 inches in length will yield their first crop of twenty leaves to the plant at the end of four years. Young plants should be placed in rows 3 meters apart with a distance between plants of 2 meters. Every 75 meters a road is left 4 meters in width so that the leaves when cut may be easily collected in carts and conveyed to the decortivating plant. These roads should run the entire length of the field when possible.

In estimating the capacity of a field it is necessary to take into consideration that an average of 10% of the land may be taken up in roads, drying spaces, necessary buildings and machinery. In addition, the Government demands that 15% of the area of all fields cultivated in Cuba should be left in forests or shade trees. From this it may be seen that instead of a thousand plants to the acre, the average for the field will amount to only 750 plants.

The caution that is maintained on the part of the Company in furnishing suckers has been found necessary in order to avoid exploiting of the public through the organization of irresponsible Companies whose interest is solely in the sale of stock instead of the development of bona fide plantations for the production of sisal. The suckers are torn away from the mother plant, trimmed, bound, and made ready for shipment. Fortunately, these young plants are quite hardy, and may be shipped in freight cars or schooners to their destination and there kept, if necessary, for weeks or even months before they are placed in the fields prepared for them.

The cost of land suitable for the cultivation of henequen is less than that for any other staple crop in Cuba, owing to the fact that in the past, at least, such lands have been used almost entirely for pasturage, and oftentimes a thorn brush known as "aroma" has been permitted to grow and eventually cover the entire surface. This bush grows to a height from six to ten feet and soon forms a thicket so dense that neither men nor animals can penetrate. The eradication is costly because, even when cut close to the ground the underlying roots send up sprouts which soon become as thick as the original patch. This sprouting, however, can be avoided by pasturing goats on the newly cut fields. They are very fond of the young buds and will keep them clipped off until the roots eventually die. Aroma covered land can be bought almost for nothing. Henequen lands located in the limestone hills of Pinar del Rio, Matanzas, southeastern section of Las Villas, Camaguey and Oriente may be purchased at prices varying from \$10 to \$20 per acre.

Level lands that have the required soil characteristics may be bought from \$20 to \$30 per acre at the present time, although as the sisal industry increases the demand for these lands will, naturally, raise the price. The cutting, burning, hoeing, plowing, etc., necessary for the preparation of the land will cost from \$10 to \$12 an acre, depending on the density of the growth that is to be cleared away. The expense of pulling up and preparing the suckers for transplanting will cost from \$4.50 to \$10 per thousand. Transportation from the original bed to the land that is being prepared can not be estimated very accurately, owing to the fact that said transportation will depend on the distance carried and the method of conveyance, whether in ox carts, motor trucks, freight cars, or schooners. Fortunately suckers are quite hardy, and will stand more or less rough usage and lapse of time before setting out. The cost of said freight, however, from nursery to plantation, will probably be from \$5 to \$10 per thousand plants.

Up to the present time most of the work in henequen fields has been done with a hoe, which, although farm labor is cheap, seldom over a dollar a day, cultivation with a hoe is in the end the most expensive method of keeping down weeds. Planting and plowing under of legumes, which not only furnish a splendid cover crop, but add

an abundance of nitrogen and humus to the soil, will be found an economical method of keeping henequen fields clean and in first class condition during the first two or three years, while waiting for the plants to mature.

The Henequen Industry

In the following tables relative to the installation and preparation of a henequen plantation, 1,000 acres has been adopted as a unit of measurement, owing to its convenience for purposes of calculation. It should be noted, however, that in order to economize in overhead and other expenses a plantation should, where possible, cover three or four thousand acres.

Land purchase, 1,000 acres at \$30 per acre.....	\$30,000	
Clearing 1,000 acres at \$15 an acre.....	15,000	
Laborers' Houses, 15 in number, at \$400 each.....	6,000	
Headquarters House or Adm. Building.....	5,000	
Field Office.....	1,000	
Building roads, fences, etc.....	20,000	
		<u>\$82,000</u>
Purchase of suckers, 750,000 at \$20 M.....	\$15,000	
Digging and trimming same at \$3.50 M.....	2,625	
Putting suckers at carts.....	1,120	
Hauling to cars.....	3,650	
Freight.....	7,060	
Hauling to plantation.....	3,750	
Scattering.....	1,125	
Planting.....	3,730	
		<u>\$38,000</u>
Decorticating plant with capacity for 160,000 leaves per day.....	\$8,000	
1 Baling press.....	1,500	
1 Diesel engine, 100 H. P.....	12,000	
Instal'tions.....	3,500	
		<u>25,000</u>
Where electricity is available, 100 H. P. electric motor can be installed in place of the Diesel engine, thus saving \$10,500.		
Miscellaneous: motor, transportation, horses, water supply, drying fields, etc.....	\$7,000	
Cultivation and cleaning of fields over a period of four years.....	32,000	
Adm. and Gen. Expenses for period of four years.....	16,000	
		<u>55,000</u>
Investment at first cutting, approximately four years after purchase of land.....		<u>\$200,000</u>

RETURNS FROM FIRST CUTTING

750,000 plants at 20 leaves to plant.....	15,000,000 leaves	
15,000,000 leaves at 45 pounds of fiber per M.....	675,000 pounds	
675,000 pounds of fiber at 8 cents per pound.....		\$54,000
Cleaning of fiber and putting F. O. B. at \$2 per thousand leaves.....	\$30,000	
Freight at 50 cents per 100 pounds.....	3,375	
Insurance at ¼%.....	75	
Wharfage.....	50	
Upkeep, repairs, etc.....	500	
		<u>\$34,000</u>
Balance.....		<u>\$20,000</u>

RETURNS FROM SECOND CUTTING

750,000 plants at 25 leaves each.....	18,750,000 leaves	
18,750,000 leaves at 60 pounds of fiber per M.....	1,125,000 pounds	
1,125,000 pounds of fiber at 8 cents per pound, New York.....		\$90,000
Cleaning and delivering F. O. B. at \$2 per M.....	\$37,500	
Freight at 50 cents per M.....	5,625	
Insurance at ¼%.....	225	
Upkeep, repairs, etc.....	650	
		<u>44,000</u>
Balance.....		<u>\$46,000</u>

RETURNS FOR THIRD YEAR

750,000 plants at 30 leaves to plant.....	22,500,000 leaves	
22,500,000 leaves at 60 pounds of fiber per M.....	1,350,000 pounds	
1,350,000 pounds of fiber at 8 cents per pound, New York.....		\$108,000
Cleaning and delivering F. O. B. at \$2 per M.....		\$45,000
Freight at 50 cents per M.....		6,700
Insurance at 1/4%.....		270
Upkeep, repairs, etc.....		980
		<hr/>
		53,000
Balance.....		<hr/>
		\$55,000

RETURNS FROM FOURTH YEAR

750,000 plants at 36 leaves to plant.....	27,000,000 leaves	
27,000,000 leaves at 60 pounds of fiber per M.....	1,620,000 pounds	
1,620,000 pounds of fiber at 8 cents per pound F. O. B. New York.....		\$129,600
Cleaning of fiber and putting F. O. B. at \$2 per M.....		\$54,000
Freight at 50 cents per M.....		8,100
Insurance at 1/4%.....		324
Upkeep, repairs of machinery, etc.....		1,176
		<hr/>
		\$63,600
Balance.....		<hr/>
		\$66,000

RETURNS FROM FIFTH YEAR

Estimates of this year when plants have reached full maturity are taken from the reports for the Plymouth Cordage Co.'s Plantation at Neuvas, Cuba.		
750,000 plants at 40 leaves to plant.....	30,000,000 leaves	
30,000,000 leaves at 100 pounds of fiber per M.....	3,000,000 pounds	
3,000,000 pounds of fiber at 8 cents per pound in New York.....		\$240,000
Cleaning of fiber and putting F. O. B. in New York.....		\$60,000
Freight.....		15,000
Insurance.....		600
Repairs, etc.....		1,400
		<hr/>
		77,000
Balance.....		<hr/>
		\$163,000

The figures for the first four years were furnished to the Department of Agriculture (Bureau of Information) by the International Harvester Co.'s plantations near Cardenas, Matanzas, Cuba.

The Second Congress of Cuban Women

The Second Congress of Cuban Women opened at the Academy of Science April 12th, with an address by President-elect General Gerardo Machado. The President of the Congress, Señora Pilar Morlon de Menendez, presided at the daily sessions. Among the subjects discussed were the following:

Suffrage for Women
The Necessity for Civic Education
Establishment of Milk Depots for Poor Children
A Larger Place for Women in the Press
Homes for Abandoned Mothers
Propaganda Against Alcoholism, Drugs and Immoral Pictures

Many prominent women attended the congress, among whom were:

Dr. Julia Martinez
Mrs. Pilar Houston

Señorita Bellini
Dr. Rosa Anders of Camaguey
Señora Aida Aguirre of Matanzas
Señora Quiros of Costa Rica
Señora Maria Montalvo de Soto Navarro
Dr. Ofelia Dominguez of Santa Clara
Dr. Gracie Barinaga
Señorita Moreda

The congress was closed April 18th. Motion was carried to hold the third congress in Havana in 1927.

American Refining Dividend

The regular quarterly dividend of 1 3/4 per cent on the preferred stock will be paid by the American Sugar Refining Company July 2 to stock of record June 1. This is the 134th consecutive dividend paid on the preferred stock.

Traffic Receipts of Cuban Railroads

Earnings of the United Railways of Havana

<i>Weekly Receipts</i>	1925	1924
Week ending May 23.....	£96,478	£85,026
Week ending May 30.....	80,799	25,780
Week ending June 6.....	72,777	5,324
Week ending June 13.....	66,113	8,236
Week ending June 20.....	57,153	54,832

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts</i>	1925	1924
Week ending May 23.....	£15,638	£13,251
Week ending May 30.....	14,249	9,638
Week ending June 6.....	14,357	5,085
Week ending June 13.....	13,605	5,128
Week ending June 20.....	13,429	8,070

Havana Electric Railway, Light & Power Company

	MONTH OF APRIL		4 MONTHS TO APRIL 30	
	1925	1924	1925	1924
Operating revenues.....	\$1,264,220	\$1,108,205	\$5,076,360	\$4,665,720
Operating expenses and taxes.....	629,528	537,689	2,566,296	2,373,413
Net Revenues.....	634,692	570,516	2,510,064	2,292,307
Other income.....	32,421	34,089	139,283	116,507
Total Income.....	667,113	604,605	2,649,347	2,408,814
Interest charges.....	89,709	91,369	359,143	366,400
INCOME, after deducting taxes and interest charges.....	577,404	513,236	2,290,204	2,042,414
Sinking fund requirements.....	28,042	26,741	111,294	106,321
Balance of income.....	549,362	486,495	2,178,910	1,936,093

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	92	94
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	98	101
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	95	99½
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	88½	...
Havana City 1st Mortgage 6% Bonds.....	100	110
Havana City 2d Mortgage 6% Bonds.....	85	100
Cuba Railroad Preferred Stock.....	83	89
Cuba Railroad 1st Mortgage 5% Bonds of 1952.....	87½	88½
Cuba Company 6% Debenture Bonds.....	...	87
Cuba Company 7% Cumulative Preferred Stock.....	...	...
Havana Electric Railway Co. Consolidated Mortgage 5% Bonds.....	95½	97
Havana Electric Railway Light & Power Co. Preferred Stock.....	...	114¾
Havana Electric Railway Light & Power Co. Common Stock.....	175	176½
Cuban American Sugar Co. Preferred Stock.....	95	95½
Cuban American Sugar Co. Common Stock.....	29¾	29½
Guantanamo Sugar Co. Stock.....	4¾	5½

Cuban Commercial Matters

Cuban Chemical Market

Cuban statistics place the value of imports of chemical and allied products in 1923 at \$13,415,606, compared with \$7,396,024 in 1922. The United States share of the trade rose from 65 per cent. in 1922 to 69 per cent. in 1923, at the expense of France, whose participation showed a decrease from 20 per cent. in 1922 to 15 per cent. in 1923. Germany increased its contribution 3 per cent. of the total in 1922 and 4 per cent. in 1923. England's share of the Cuban trade showed a decrease from 4 per cent. in 1922 to 3 per cent. in 1923.

The year 1923 was an extremely successful one for the sale of fertilizer in Cuba. According to American statistics, shipments of fertilizers and fertilizer materials from the United States increased almost 500 per cent. in 1923 over 1922—99,199 tons, worth \$2,930,642, compared with 20,205 tons, valued at \$372,589, in 1922.

The value of exports of medicinal and pharmaceutical preparations from the United States to Cuba in 1922 amounted to \$1,468,583 and in 1923 reached \$2,167,816, an increase of about 50 per cent.

During 1922 the value of United States exports of perfumery and toilet preparations to Cuba reached \$361,579 and in 1923 amounted to \$495,511, or an increase of about 35 per cent.

Exports of paints, pigments, and varnishes from the United States to Cuba rose in value from \$1,002,224 in 1922 to \$1,780,488 for 1923.

The production of industrial alcohol, both pure and as fuel, is becoming a very important Cuban industry. During 1921, 36,557,187 liters were manufactured; in 1922 the production of alcohol increased to about 50,000,000 liters, of which approximately 18,000,000 were converted into motor spirit. The alcohol industry comprises 37 distilleries, representing a capital investment of more than \$25,000,000, largely Cuban. (*Commerce Reports*, Jan. 19, 1925.)

Cuban Market for Underwear

It is estimated about one-half of the men's underwear sold in Cuba comes from the United States, while the balance is divided about equally between imports from France, chiefly knitted underwear, and locally made products consisting principally of two-piece athletic suits. The United States also supplies approximately 50 per cent. of the women's underwear and about 90 per cent. of the children's underwear imported into Cuba, according to a report from Assistant Trade Commissioner O. R. Strackbein, Havana.

Cotton is the principal material used in men's undergarments, about 65 per cent. of which are knitted, while in women's underwear woven garments of sheer cotton, handkerchief linen, and silk are popular, only about 25 per cent. of the women's underwear sold being knitted. A list of the larger import houses in Havana dealing in underwear will be made available to American firms upon application to the district office of the Bureau of Foreign and Domestic Commerce or the Textile Division at Washington, D. C.

Construction in Havana

Trade Commissioner C. A. Livengood reports to the Department of Commerce that work on a 20-story office building is expected to begin at once, the approximate cost of which is to be \$3,000,000.

Among other new projects under consideration in Havana is an up-to-date moving picture theatre with a capacity of 3,000 persons, with the possibility of an apartment hotel in combination. Bids will probably be received by the middle of August, and work is expected to commence by September 1st.

Cuba Buys 6 Locomotives

It is reported that an order for six mountain type locomotives for the Havana Central Railroad for use on United Railways of Havana, has been received by the Baldwin Locomotive Works.

The Sugar Industry

Lubrication of Sugar Mill Machinery

CAREFUL SELECTION OF OIL AND GREASE
WILL PROLONG LIFE OF EQUIPMENT

The proper lubrication of sugar mill machinery and equipment is one of the most interesting parts of the work of a lubricating engineer. The importance of keeping this machinery in first-class running condition is a paramount one, especially at the present time, when so many factories are being equipped with modern machinery, says the *South African Sugar Journal*, and continues:

The different kinds of machinery required to operate a sugar mill, the enormous size and weight of some of the parts, and the different speeds at which the machines run, is a revelation to the inexperienced lubricating engineer in this line of industry. Let us take for example an average size sugar mill of 11 rolls.

This means that there are three sets of rolls of three rollers each, and two for use as crushers or breakers of the cane as it comes from the carriers. All the sets of rolls are in tandem; in some mills, instead of two rolls as preliminary crushers, two sets of revolving knives are used to cut the canes up into small pieces before it is passed on to the mill rolls, and others use large machines called shredders.

The mill rolls, crushers, and cane carriers are driven by an immense main steam engine, having a cylinder 30 inches in diameter by a 60-inch stroke, working at 100 lbs. steam pressure per square inch, and from 45 to 70 revolutions per minute, whose power is transmitted through a great "spur" wheel or main gear wheel of about 9 feet in diameter, with a face 11 inches wide, on which the teeth, about 2½ inches thick, are cast. The main gear wheel weighs from 4 to 8 tons, and the teeth on its face mesh with the teeth on the smaller gears and pinions, carrying the power to the mill rolls, crushers and cane carriers. The fly-wheel of the main engine ranges from 12 to 20 feet in diameter and weighs, in some cases, as high as 26 tons.

The cylinders of other main engines in larger mills run up to 36 inches in diameter by an 84-inch stroke; other mills are operated electrically, especially in Cuba, where the largest sugar mills in the world are located.

Other steam engines required in sugar mills are for vacuum pumps, engines for the triples, engines for the centrifugals, fan engines, etc., and many pumps, including rotary pumps, centrifugal pumps, irrigation pumps, turbine pumps for driving centrifugals, etc., all of which require expert lubrication. Then come the sugar centrifugals, ranging in number from four to twenty and more, according to the capacity of the mill, which also require expert lubrication; they run from 30 inches to 54 inches in diameter, and have an average speed of 1200 revolutions per minute. Some use oil and some grease lubrication.

The big mill rolls and crushers range in size from about 20 inches in diameter by 36 inches long, to 40 inches in diameter by 80 inches long, with journals from 12 to 22 inches in diameter. These journals are the most difficult parts of sugar mill machinery to lubricate successfully on account of the immense pressure required to extract the juice from the cane. The hydraulic pressure on the top rollers ranges from 200 tons in the smaller mills to 650 tons in the largest mills, and the heating up of these journals much above normal running temperature means serious trouble, if not a shut-down of the mill for repairs, which entails a heavy loss in the production of sugar.

A great many sugar estates have quite a railway system to handle the canes from the fields to the mill, and have a number of locomotives and cars for this purpose, all requiring expert lubrication. There are also cane hoists, small machine shops, and other small machinery con-

nected with the estates, which require lubrication.

The steam cylinders of sugar mill engines, steam tractors, locomotives, etc., should be lubricated with a high-grade cylinder oil of about 130 seconds Saybolt viscosity at 210 deg. F.

If the main engines are condensing or use superheated steam, a straight mineral oil can be used in this case, but for ordinary auxiliary engines compounded oil is preferable, if not almost essential. If it is desired to carry only one cylinder oil, one with a light compound is recommended as meeting all the conditions most satisfactorily. If two cylinder oils are carried, as they look alike they are sure to get mixed unless great care is taken, and the object of carrying two oils is defeated.

For the lubrication of internal combustion engines on tractors it is advisable to carry an oil of 500 to 750 viscosity, especially designed for tractors. Of course, any oil of above viscosity can be used, and may give fair results if the cylinders are cleaned frequently, but a special non-carbonizing oil is preferable.

For the lubrication of bearings, guides, links, eccentrics, etc., of sugar mill engines, a straight run oil of 300 to 500 viscosity will give satisfaction, the heavier, larger engines naturally requiring the higher viscosity oil. For light engines, dynamos, etc., an oil of 200 to 300 seconds viscosity should be used.

For centrifugals, on account of their high speed and exact construction, a fully refined, filtered oil is to be preferred. Usually an oil of 200 seconds viscosity will operate most satisfactorily. For unusually large units it may be preferable to use 300 seconds oil, or for very small units an oil with less viscosity than 200 seconds may give slightly less running friction, but almost universally the 200 seconds oil will be the most practical to adopt.

PROPERLY OILED BEARINGS. For the lubrication of the heavy mill roll, crusher and gear bearings, on account of the high pressures, a heavy bodied lubricant is necessary. Ordinary oils have not sufficient viscosity to keep the surfaces apart, on account of the comparatively

slow speed and heavy pressures. A lubricant of about 200 viscosity at 210 deg. F. seems to meet the requirements, and a straight petroleum product seems to give better results than a grease or compound.

This type of lubricant also has the advantage of adhering tenaciously to the bearing and of not being worked out by the variation of pressure to which the roll bearings are subjected.

A similar type of compound, but of a viscosity of about 1000 seconds at 210 deg. F. is most suitable for gears. This compound should be very adhesive to metal, and of such a consistency that it will not run, drip, or crumble from the gears, and still be sufficiently plastic to furnish good lubrication. This same compound should be used on wire ropes, chains, hoists, conveyors and outside exposed surfaces.

Where turbines are used the oil used must be particularly refined, so as not to emulsify with water. In most turbines, continuous systems of oiling are used, and as the oil generally comes in contact with steam, and its mixing with water can hardly be prevented, the oil must separate quickly from the water and not form a foam or emulsion. If the oil is not used in a closed system this special refinement, of course, is not absolutely necessary, unless there is a chance of the oil and water mixing in the bearing. The viscosity of the oil necessary for turbines varies according to size and type, ranging from 180 seconds to 300 seconds, though 180 seconds is generally most satisfactory.

THE CANE TRUCK. For the lubrication of the moving parts of locomotive machinery, such as eccentrics, links, guides, etc., a locomotive engine oil of from 400 to 450 seconds viscosity at 100 deg. F. should be used. For the lubrication of cane trucks a summer black oil meets the needs. Throughout the plant there are many places where grease is necessary. Probably two grades will satisfy all the conditions, No. 3 and No. 5, except in the case of wagons, where axle grease is much cheaper.

We have now specified the following types of oils: cylinder oil, slightly compounded; roller lubricant; heavy engine

oil; light engine oil; light engine oil for centrifugals; gear compound; turbine oil; two grades of grease; locomotive engine oil; internal combustion engine oil.

These grades will cover almost any case, and in case one grade becomes exhausted there is another that can be used, though not necessarily so satisfactorily. The list can be expanded or contracted according to conditions.—*Sugar.*

Canada's Beet Sugar Production

The profitable development of the beet sugar industry in Canada is a question of great interest and importance to both the agriculture and commerce of the Dominion. The production of Canadian home-grown sugar is not, as yet, a large and widespread industry, although reports indicate that extensions are now under way. The production of sugar beets fluctuates from year to year, but the following figures for 1923, supplied by the Dominion Bureau of Statistics, show the extent of the industry in that year: Acres sown to sugar beets, 17,941; yield in tons, 159,200; value of crop, \$1,922,668; total production of granulated sugar from beets, 39,423,160 pounds.

Among the more important factors which contribute to the successful production of beet sugar in Canada are efficient labor, cheap fuel and limestone, and an adequate supply, within reasonable distance, of high-quality beets. It was with respect to the quality—the richness and purity—of Canadian-grown sugar beets and the influence thereon of soil and climatic conditions as occurring and prevailing in various parts of the Dominion, that the Department of Agriculture inaugurated an investigation in 1902 and continued it to date. The results unquestionably prove that beets of excellent quality for this purpose can be raised in many widely separated portions of Canada, as shown by field experiments carried on at a number of points from Prince Edward Island in the East to Vancouver Island in the West.

In outline the plan has consisted in growing beets of approved varieties for sugar production on the larger number of the farms and stations of the Experimental Farms system, and analyzing as to rich-

ness and purity a representative sample of the harvested crop. The products of both home-grown and imported seed were tested, and it is a matter of considerable satisfaction that Canadian-grown seed has given excellent results fully equal to those obtained from imported seed of the best factory varieties.—*Canada West India Magazine.*

To Grow Beets for Manitoba Sugar Plant

Directors of the Manitoba Sugar Company, at their last meeting in Winnipeg, decided to purchase sufficient seed to start about 100 plots of sugar beets this summer within a radius of 75 miles of Winnipeg. The seed will be given out to selected gardeners and farmers so as to insure a trial under the very best conditions.

The beets, when matured, will be tested at the Manitoba Agricultural College and at laboratories in the United States to arrive at the quality and suitability of the Manitoba beet for sugar-making, and will not be shipped out of the country to United States factories, but will be sold for feed to cattle breeders.

The directors intend to make sure that the district is well adapted for sugar beet cultivation before making a public appeal for stock subscriptions. The estimated acreage required for the proposed factory is 12,000 acres, although the one at East Grand Forks will require an acreage of 20,000, but the machinery they are installing will cost \$1,300,000, almost too heavy for one factory in the estimation of the Winnipeg Sugar Company.

The seed for the sugar beet all comes from one place in Germany where the secret is held; United States factory owners have started to grow seed for cultivation of plants, but in no instance have they met with the success which has resulted from beets grown from German seed.

The directors' idea in selecting farmers to grow the beets is not to be deluged by offers from everywhere for the privilege of being one of those in the experiment. Inquiries already have been received from many persons who wish to grow beets for Winnipeg factory. A supervisor will be engaged to watch the growth and cultivation of each plot to give the very best possible chance for success.

New Process at Hershey

REFINED SUGAR MANUFACTURED DIRECT FROM CANE WITH BONE BLACK

Central Hershey at Hershey, Havana province, Cuba, which has been the trial ground for a number of new ideas in the manufacture of sugar, has taken a step this season that is attracting widespread attention among sugar men. This is the production of refined granulated sugar direct from the cane without the usual intermediate procedure of making raw sugar and remelting it for the refining process.

BONE BLACK PROCESS USED

The plant at Hershey was designed originally to make either raw sugar or sulphured plantation white. In making the change to the production of full refined direct from the juice little alteration in the plant was necessary, except for the installation of the bone black filtration equipment and the Vallez rotary filters with paper pulp as the filtering medium. All other equipment remained the same. The new process was in operation from early in April to the conclusion of the grinding campaign.

The method of handling the juice under the new process was as follows: The thin juice was screened at the mills, then limed and settled, the thin juice passing to the evaporators and the thick mud to the wet presses. The thick juice was filtered with paper pulp over Vallez filters and then pumped twice over the bone black filters, after which it was sent to the pans.

The action in the pans was most noticeable as was to be expected in boiling a higher purity and cleaner syrup. The pans boiled more freely, much faster and more evenly, and sparkling grains were easily formed which purged easily. After leaving the centrifugals the sugar was dried and packed in bags.

The paper pulp filtration plant consisted of six Vallez rotary filters with pulp apparatus for washing the dirty pulp. It is housed in the existing building, in the space formerly occupied by the defecators and cachaza tanks.

A new six-story building was provided for the bone black equipment. The equipment consists of 30 ten-foot standard char filters, 11 eighty-retort char kilns, a de-

carbonizer and 12 driers, all of Kent design.

INCREASED CAPACITY PLANNED

The results of operation this season were so successful that the company is now enlarging the mill-grinding capacity to 6,000 tons of cane and installing five additional Vallez filters to handle the increased capacity.

The syrup that cannot be handled by the char filters will be boiled into a high grade raw sugar, which will have excellent keeping qualities and will be stored and melted during the dead season. The raw sugar made in this way will require very little additional filtration when melted.

During the crop a pan of raw sugar was made from the filtered syrup before going to the bone black. A sample of the sugar was melted, giving a clear syrup, which could have been run on the bone black without further treatment.

In future seasons, according to present plans, the plant will operate on its own sugars during the grinding campaign, but during the off season it will be operated as a refinery, buying and melting raw sugars and treating them in the usual way.

In equipping this plant to refine sugar the year around the owner has reduced the overhead costs of both the raw sugar and refinery operations. The change also eliminates the making of a considerable quantity of raw sugar which is refined direct, all of which is expected to reduce operating costs and increase the earning power of the property.

Java Sugar Crops

The following table shows the area devoted to sugar cane in Java from 1910-24 inclusive, together with the production of cane and of sugar:

Year	Area, Bows	Cane, kg. per Hectare	Sugar, kg. per Hectare	Rendement	Total Sugar, Tons
1910....	178,292	97,997	10,118	10.33	1,280,300
1911....	191,335	105,307	10,000	10.26	1,466,569
1912....	197,707	104,263	10,023	9.63	1,406,399
1913....	204,778	104,524	10,006	9.65	1,465,975
1914....	207,800	102,609	9,526	9.28	1,404,942
1915....	213,013	95,306	8,725	9.15	1,319,087
1916....	221,823	103,218	10,351	10.03	1,629,827
1917....	226,082	108,179	11,355	10.50	1,822,118
1918....	229,791	97,387	10,903	11.19	1,778,207
1919....	193,977	96,517	9,705	10.06	1,336,112
1920....	249,925	93,732	9,891	10.55	1,543,923
1921....	224,724	94,504	10,566	11.18	1,685,334
1922....	226,760	105,816	11,234	10.61	1,808,036
1923....	230,178	99,986	10,965	10.91	1,792,871
1924....	242,828	106,357	11,599	10.90	1,997,909

Beet Acreage in Europe

According to report of Dr. Gustav Mikusch, repeated rains of varying intensity while interrupting field work to some extent, have been of the greatest benefit in thoroughly moistening the soil and giving the sugar beet a good start.

Reports as to beet sowings which are now at hand in more or less complete form from most of the principal producing countries, though still lacking from many of the smaller nations, indicate that no great change is taking place in the total beet crop area. In Czechoslovakia there is a very small increase in acreage. In Germany the gain amounts to about two per cent. In western and northern Europe there is generally a decrease of 5 to 10 per cent, while in the South the falling off increases to 20 to 30 per cent so far as can be determined by early reports. Taking Europe as a whole, exclusive of Russia, there is an average decrease of 6.8 per cent.

Russia, as usual, is a factor of uncertainty. According to the announcement of the Sugar Trust an area of 410,000 desiatines (1,107,000 acres) will be planted to beets this season. It is doubtful whether this expectation will be realized, but if it should be, the acreage for all Europe, including Russia, would be 5,044,000 acres as compared with 5,064,000 in 1924, or a reduction of only 20,000 acres, a mere fraction of one per cent.

The following table gives the area devoted to beets in the various countries, according to preliminary estimates, in comparison with 1924 and 1923, the figures being given in thousands of acres:

EUROPEAN BEET SOWINGS

	1925	1924	1923
Germany.....	885	868	829
Danzig.....	10	12	5
Czechoslovakia.....	751	740	558
Austria.....	47	46	32
Hungary.....	163	186	118
France.....	457	483	383
Belgium.....	183	199	179
Netherlands.....	166	176	167
Poland.....	383	416	337
Denmark.....	94	92	75
Sweden.....	99	102	106
Italy.....	235	336	230
Spain.....	173	210	153
Jugoslavia.....	86	128	73
Rumania.....	128	133	92
Bulgaria.....	30	62	30

	1925	1924	1923
Switzerland.....	3	3	3
England.....	49	23	17
Finland.....	2	1	2
Europe excluding Russia..	3,944	4,216	3,389
Russia.....	1,100	848	611
Total Europe.....	5,044	5,064	4,000

Sugar Scheme in Sao Paulo

It is reported in the *Jornal da Lavoura* that an agitation has been set on foot for the revival of the sugar industry in the coastal regions of the Brazilian state of Sao Paulo. This section at one time was a producer of sugar for port, but the industry subsequently was suffered to decline and eventually was practically abandoned. The present revival of interest is a consequence of Sao Paulo's growth in population and industrial prosperity, which makes it one of the principal consuming markets of the country and a large importer from the sugar-growing region of Pernambuco. Proponents of the movement for re-establishing local production point out that since in the coastal region of the state and the valleys of Serra do Mar sugar cane has demonstrated its ability to flourish and yield 80 to 100 metric tons to the hectare, there is no apparent reason why Sao Paulo should not produce its own sugar supply, or a considerable part thereof.

Jaronu's Record Crop

It is reported that Central Jaronu of the American Sugar Refining Company, completed its 1924-25 grinding campaign, May 23, with a production of 600,333 bags of raw sugar. This was a record output, Jaronu's best previous outturn having been 577,230 bags in 1922-23. Its production in 1923-24 was 471,072 bags.

Central Cunagua, which closed its campaign on May 7, also made a record crop of 601,031 bags. The combined production of the American's Cuban estates this season was thus 1,201,364 bags. The production figures for previous seasons since Jaronu began production are: 1921-22, 801,623 bags; 1922-23, 1,164,295; 1923-24, 1,026,332.

A New and Most Valuable Clarification Process for the Sugar Industry

An original and ingenious method for the clarification of cane sugar solutions has been fully tested and was in continuous operation during the latter portion of the season of the crop of 1924-1925 at Central Gomez Mena (San Nicolas, Havana Province, Cuba), property of the Warner Sugar Corporation.

It proved effective and the quality of juice produced by this novel process was quite the most superior, in the opinion of sugar experts, ever observed in raw cane sugar factories. One world renowned sugar expert expressed himself that, "this is the clearest juice I have ever seen in my experience of thirty-five years in the sugar industry."

(EDITOR'S NOTE.—The quality of sugar is, to a great degree, dependent upon the clarity or clearness of the juice. The clearer the juice the more perfect the sugar.)

The process is based upon modern colloidal chemistry, and the control being maintained by hydrogen-ion method of determination.

The raw juice is coagulated by heat and processed in a machine known as a "coagulator" where simultaneously lime is applied in such a form as to neutralize the natural acidity of the juice and consolidate the coaguls into visible "flocks."

The operation is conducted by a most simple manner of control, and the reaction is observable in an observation glass tube where the operator checks his observations with a specially prepared hydrogen-ion solution paper.

So simple is this control and check system that an ordinarily experienced defecator mill hand learns the process within a few minutes and becomes quite proficient within a day or two.

An accurate control is maintained by the chemical laboratory using the color test of hydrogen-ion method. Not a complicated process for a skilled chemist.

It is found that a skilled machine operator will maintain a control with a variation of 0.2 to 0.4 PH, merely by a visualization.

The fluid upon evacuation (continuous) from the coagulator is conveyed by pumps or gravity to an apparatus known as a "settler," where a unique system of parallel flow of fluids is utilized to precipitate the coagulated substances.

This apparatus is a continuously operating mechanism, and the concentrated substances (cachaza) are expelled into the present mill system, or any other desired method of disposal, and the clarified juices are continuously drawn off at a central point, under observation of its operator, free from suspended matter, and the clear juice is disposed of to the evaporator supply tanks.

The coagulator is made in capacities of 2,000 tons of juice per 24 hours and settler in 2,500 ton or less capacities during a similar period of time, with an abundant reserve for overloads of a temporary nature.

Theory

The theory is that in the usual methods (present) of juice clarification it is customary to add lime in concentrated form into the raw juice. This method produces an excess of local alkalinity, and such excess alkalinity continues until the lime is diffused throughout the tank and brought in contact with all the juice.

Derogative reactions occur by such a method, one of which is quite visible, namely, the discolorization of glucose (present in cane juices) caused by contact with an excess of lime and other reactions of a nature which reduce the yield of sugar.

By the improved method under discussion the lime is added in most dilute form and brought in contact with a most limited amount of juice, and never is there an excess of alkalinity as in the earlier method.

This is accomplished by inducing the lime in a form of sucrate (a solution of sugar combined with lime in very dilute form—or other equally satisfactory means) into the coagulator, and presented to but small quantities of juice by nearly invisible sprays. The result is an instantaneous reaction.

The sucrate is simply produced, being ordinary lime, hydrated and added to a cool sugar solution where the lime combines with the sugar in quantities dependent upon the sucrose content of the solution and the temperature thereof.

The colloids have been coagulated by previous heating to a suitable degree, and under the action of the coagulator and under the control of hydrogen-ion determination the proper neutrality of the solution is maintained where external influences (electrons) are removed and the impurities "flock" (may be described as balling or rolling up the impurities) or grow and reach a size frequently one-fourth inch in diameter.

The solution is retained a sufficient length of time within the coagulator to complete the construction of these flocks and is discharged (continuously) into the settler where the flocks, being heavier than the fluid, settle out rapidly, leaving a clear, pure and brilliant effluent, free from all suspended matter.

Economies

The economies resulting from this novel method are, that the lime is introduced into the process only in sufficient quantities to accomplish neutralization of the acidity of the raw juice and to serve as a clarifying agent, thereby effecting a saving in the use of lime over the present system of from 30% to 50%. In addition, and of great value, is that there being no excess or uncombined lime, all lime introduced seems to be removed in this process, with consequent avoidance of fouling of the heating surfaces of the evaporating appliances with lime salts. This effects an economy in steam requirements.

The apparatus is thoroughly insulated and retains the original heat which makes for a further conservation of heat.

Due to the rapidity of processing and the excellence of the control under varying conditions met with in sugar house practise, due to foul, sour and damaged cane, superior results are obtained heretofore unknown, and the consequent yield of sugar increased, with an anticipated reduction in the cost of the manufacture of sugar as a result.

The most prominent sugar technicians and fabrication superintendents on the Island of Cuba who have viewed this experimental plant are enthusiastic in their endorsement of the process, the simplicity of operation, remarkable control and the resulting superiorly clarified juice, these individuals have made most favorable comment. A sugar engineer of world-wide prominence described this process as being "the greatest advance in raw sugar production in a generation."

Gilchrist & Company, 122 South Michigan Avenue, Chicago, Illinois, U. S. A., and Aguiar 10, Havana, Cuba, Engineers, are investigating a number of plants with a view to installing this equipment in order to permit these plants to take advantage of its benefits during the coming season's crop.

Nueva y Valioso Proceso de Clarificación Para la Industria Azucarera

Un método original e ingenioso para la clarificación de guarapo ha sido completamente probado y ahora se encuentra en operación continua en el Central Gómez Mena (San Nicolás, Prov. de Habana, Cuba).

Este proceso es muy efectivo y la calidad del guarapo tratado con él es, según la opinión de expertos azucareros, la más superior que se ha podido observar en ingenio o central alguno. Un conocido y renombrado experto azucarero ha dicho: "Es él guarapo más claro que he visto en mi experiencia de 35 años en la industria azucarera." (Nota:

La calidad del azúcar depende, en gran parte, de la claridad o limpieza del guarapo. Cuanto más claro el guarapo mejor el azúcar.)

El proceso está basado en la química moderna de los coloides y el control se mantiene por medio del método de determinación del ion hidrógeno.

El guarapo crudo es coagulado por el calor y tratado en un aparato llamado "coagulador" en el que simultáneamente se le agrega cal en forma tal que ésta neutraliza la acidéz natural del jugo y consolida la precipitación en cuáguos visibles. La operación se conduce por medio de una regulación muy simple y sencilla; la reacción que se produce puede observarse en un tubo de cristal por el que circula el líquido, tubo que al mismo tiempo sirve para que el operador pueda comprobar sus observaciones con un papel preparado con una solución especial. Esta manera de regulación y comprobación es tan fácil que un hombre cualquiera, con la experiencia corriente en la defecación, puede aprender el proceso en pocos minutos y hacerse proficiente en un día o dos. La comprobación exacta se mantiene en el laboratorio químico haciendo las pruebas de color del método del ion hidrógeno, el cual no es un proceso complicado para un químico competente. Un operador que esté práctico en el manejo del aparato puede, simplemente con la vista, regular la operación con una variación de 0.2 a 0.4 pH.

El guarapo al salir (continuamente) del coagulador es llevado, por bombas o por gravedad, a un aparato llamado "asentador," en el cuál un sistema único, de corrientes paralelas de los fluidos y en la misma dirección, es utilizado para asentar las sustancias coaguladas. Este aparato es de operación continua y las sustancias concentradas (cachaza) son expelidas de él al sistema corriente que tenga el ingenio para la disposición de las mismas; el guarapo, claro y libre de materias en suspensión, es llevado a un punto determinado por donde se extrae, bajo la observación del operador, y es enviado a los tanques de los evaporadores.

El coagulador se construye con capacidad para 2.000 toneladas de guarapo por cada 24 horas, y el asentador con 2.500 toneladas o menores capacidades para el mismo periodo de tiempo, teniendo ambos aparatos capacidad extra suficientes para los periodos de sobrecarga de poca duración que puedan sobrevenir.

La teoría de este proceso es que en los métodos corrientes (actuales), de clarificación de guarapo, es costumbre echar la cal en forma concentrada al guarapo crudo, lo cual produce un exceso de alcalización local, condición que continúa hasta que llega a difundirse por todo el tanque y se pone en contacto con todo el guarapo. Con estos métodos ocurren reacciones desfavorables, una de las cuales es muy visible y es la descolorización de la glucosa (presente en guarapos de caña) causada por un exceso de cal, y otras reacciones de una naturaleza que reducen el rendimiento de azúcar.

En el método mejorado que se discute, la cal se echa en una forma muy diluida, se hace que entre en contacto con una cantidad de guarapo muy limitada y nunca puede existir un exceso de alcalización, como sucede con los viejos métodos. Esto se consigue introduciendo la cal en forma de sacarato (que es una solución de azúcar con cal en forma muy diluida, el cuál se inyecta a muy pequeñas cantidades de guarapo por medio de una atomización casi invisible. El resultado es una reacción instantánea.

La preparación del sacarato es sencilla. Cal ordinaria deshidratada (o muerta) se agrega a una solución fría de azúcar, en la que la cal se combina con el azúcar en proporciones que dependen de la cantidad de sacarosa en dicha solución y de la temperatura de ésta. El sacarato así preparado se introduce en el coagulador, donde ocurre la reacción deseada.

Con el calor de los calentadores, donde el guarapo se calienta a un grado conveniente, se han coagulado los coloides y bajo la acción del coagulador, mediante el método de determinación del ion hidrogeno, se mantiene la solución en el punto neutral donde las influencias externas (electrones) son removidas y las impurezas "coáguos" (que se pueden describir como la formación de masas que envuelven las impurezas) crecen y alcanzan frecuentemente $\frac{1}{4}$ " en diámetro. El guarapo se retiene en el coagulador el tiempo suficiente para completar la formación de los

coágulos y entonces se descarga (continuamente) al asentador donde dichos coágulos, siendo más pesados que el fluido, se asientan rápidamente y dejan un líquido claro, puro y brillante, a la vez que libre de toda materia en suspensión. La cal se introduce en el proceso nada más que en la cantidad necesaria para obtener la neutralización de la acidez del guarapo crudo y para que sirva como un agente clarificador, lo que implica una economía sobre el método corriente de un 30 a un 50% en el uso de esta materia. Además de esto, y es de gran importancia, el hecho de que no existiendo exceso o cal que no está combinada, toda la que se introduce se remueve después en el nuevo proceso, con lo cual se evitan las incrustaciones de sales de calcio en las superficies de calefacción de los aparatos evaporadores. Esto significa una economía en el uso de vapor. También contribuye a esta economía el hecho de que los aparatos están forrados con amianto y materias que conservan el calor.

Gilchrist & Company, Ingenieros con oficinas en 122 Michigan Avenue, Chicago, Ill., E. U. A., y en Aguiar No. 110, 3er piso, Habana, estan investigando un numero de plantas con el objeto de instalar estos aparatos, de manera que puedan tener la oportunidad de obtener los beneficios para la proxima zafra.

Australian Sugar Crop

Grinding is now under way on what undoubtedly will prove to be largest cane crop ever harvested in Australia. Mills report that the cane is still green as a result of the unusually abundant rainfall during the past few months. Sucrose is therefore below the average in the earliest cuttings, but the tonnage will run extremely heavy.

Estimates of the probable sugar output still place it close to 500,000 long tons. Some sugar producers express the opinion that this figure will hardly be reached on account of the early beginning of the campaign and the consequent grinding of an unusually large percentage of low sucrose cane, but in view of the fact that the quality of cane to be handled is so large that the campaign will be prolonged at the other end it seems improbable that this will have any very marked influence on the final output.

An estimate received and published by the federal Department of Trade and Customs places the production of sugar at 499,000 tons and the probable consumption within the country during the coming year at 320,000 tons. This leaves a surplus of 179,000 tons from the coming crop to be exported, to which must be added 23,000 tons carry-over, or a total quantity available for export of 202,000 tons. The estimate for domestic requirements allows a consumption per capita of 122

pounds, according to the present estimate of population.

The problem of disposing of the surplus portion of the crop, which has been cause of some concern, has ceased to be of serious importance since it is understood that arrangements have been made by which the British market will take some 180,000 tons in a series of shipments to extend from June to December. This arrangement was one of the first results of the action of the British Parliament in increasing the preference on empire-grown sugar. The new preference rate, which takes effect July 1, of 4s. 3 1/3d. per cwt. for 98° sugar is 46s. 8d. per ton over the old rate, and this increase will enable the Australian growers to obtain about £420,000 more from the sale of their surplus supply than would be possible otherwise. There has been some discussion as to the method of selecting the sugar to be sold in the export market but this has been settled by the decision of the Sugar Board to pool the crop, so that each producer will share pro rata in the export movement.

Production of Pineapples Season of 1925

The pineapple crop in Cuba averages from 3,000 to 4,000 carloads a year. The period of greatest activity in the pineapple trade is from April 15 to July 1, practically the entire crop being exported to the United States and Canada.

Sugar Review

Specially written for THE CUBA REVIEW, by Willett & Gray, New York, N. Y.

Our last report was dated May 22, 1925. Since that time several new factors have entered the situation, most of which have had an unfavorable affect on the course of prices. It has become more and more evident that the Cuban crop will exceed the 5,000,000 ton mark and that it may even touch 5,100,000 tons as a final outturn, and this increase in the crop has added further sugars to an already excessive supply. In addition to these Cuban developments, increased competition has appeared from Java, where the crop, harvesting of which started in late April, 1925, is expected to reach fully 2,000,000 tons, and which is being offered quite freely throughout Europe. This caused some hesitation on the part of English refiners to purchase Cuban sugars and their operations during the period under review have gradually decreased, and this has taken an important buyer out of the Cuban market.

Another feature that has been given considerable importance, but which we think was somewhat exaggerated, is that the weather conditions in Europe are not favorable for the best developments of the crop, as many sections in Europe have experienced too dry weather, which has caused some decrease in the expected amount of acreage devoted to beets. In this regard, the latest advices from Messrs. F. O. Licht, German authority, state that the sowings of the 1925-26 Beet crop are estimated to reach 2,048,946 hectares, compared with 2,061,618 hectares the preceding crop and, as mentioned above, as the weather is not quite favorable, some of the European authorities are looking for a smaller crop. However, it is much too early to talk about any particular decrease, as there are several months of growing weather still ahead of us and favorable weather conditions during the rest of the season can easily make up any deficiency as it appears at present. The present conditions, however, have influenced the demand somewhat for Cuban sugars from the Continent, and Holland and France have purchased several cargoes of Cuban sugars at up to 12s 10½d c.i.f. Continental ports. As far as the United Kingdom is concerned, Cubas are rather freely offered at 12s 9d c.i.f. U. K. ports for July shipments, but the English refiners are rather indifferent, owing to the facts as outlined above.

The course of prices here has ranged within small limits, as at the time of our last report Cuban sugars were selling at 2½ c. & f., but during the early part of June, owing to the unfavorable reports regarding the European Beet crop, combined with some European buying of Cubas, the market firmed up and on June 5th touched 2 11/16c c. & f. After a few small fluctuations, the market has declined to 2 5/8c c. & f. at the present writing, at which it appears to be reasonably steady.

On June 15th, 1925, President Coolidge finally gave his decision in regard to the question of the United States Sugar Tariff. It will be remembered that a majority of the United States Tariff Commission had recommended that the duty on sugar be reduced, but President Coolidge, in a long statement, has given his reasons why he believes the Tariff should remain unchanged at its present rate. The decision finally settles the matter until further Tariff legislation is introduced into Congress, which is not likely for the next few years, that is to say, with any hope of passing Congress.

REFINED.—Owing to the large supplies of sugar throughout the world, with which our refined buyers are thoroughly familiar, they take but little interest in the situation and confine most of their buying to requirements only a short time ahead. There appears to be one price at which refined buyers show marked interest and that is, at 5.50c and, occasionally, during the period under review, some refiners would quote 5.50c. and generally received more business that they cared to accept, with the result that prices returned to a higher level. This particularly applies to Arbuckle, who quoted 5.50c. for a few days during the month, but afterwards advanced to 5.60c., which they continue to quote at this writing. On June 17th, the American, National, Warner and Atkins, as well as several out-of-town refiners, advanced their quotation to 5.70c. and have continued firm at this basis up to the present writing, but they are doing

practically nothing at the 5.70c. price, buyers generally managing to obtain supplies from some source at lower figures than 5.70c. Federal continues to name 5.55c for prompt shipment.

There has been considerable competition between the refiners for the sale of refined sugar and this caused the California & Hawaiian Refinery on the Pacific Coast to restore their guaranty against decline. It might be interesting to your readers to give the California & Hawaiian Sugar Refining Corporation's reasons why they decided to restore the guaranty.

CALIFORNIA & HAWAIIAN RESTORES PRICE GUARANTY.—The California & Hawaiian Sugar Refining Corporation, of San Francisco, Cal., makes the following announcement, under date of June 5, 1925:

At earnest solicitation practically all refiners and manufacturers of sugar the C. & H. last November modified its long established terms and withdrew its guaranty to arrival on sugar sold by it. It was hoped that the withdrawal of this guaranty would result in a general improvement of trade conditions and the elimination of unethical practices. Instead, conditions have become more chaotic and the area of disturbance much more widespread than ever, to such extent that the sale and distribution of this Company's product is materially interfered with. The C. & H. Sugar Refining Corporation has always sold its product in accordance with its published price list and terms and will not stoop to the unethical practices so prevalent today. Therefore, effective with all contracts entered into from this date, ITS FORMER GUARANTY TO ARRIVAL IS RENEWED on all sugars sold by it in the Missouri and Mississippi River Valleys, subject, however, to the following conditions:

1.—That said guaranty is subject to withdrawal at any time, such withdrawal not affecting contracts already accepted.

2.—Guaranty will, in no case, extend beyond thirty days from date of signing contract, plus twelve days transport time, unless Refinery is prevented from shipping sugar when due reasons for which buyer is not responsible.

Regarding domestic Beet sugars, there are none for sale in Eastern territory, while from Chicago westward to the Rocky Mountains there is still a supply of old crop Beets, which is being quoted at 5.60c seaboard basis. The weather for the new domestic Beet crop was, for a time, quite unfavorable, owing to a long period of dry weather, but latest reports are that rains have occurred and the situation is much improved.

There has been an increased demand for export sugar, shipments during second half of May and June being quite good. Granulated for export is quoted generally at 3.60c. net cash, in bond, for June and July shipment.

New York, N. Y., June 22, 1925.

Tariff

President Coolidge's Statement on the Tariff Commission's Report.—Washington, D. C.—June 14, 1925.—President Coolidge's adverse findings on the recommendation of the Tariff Commission for a reduction of the duty on sugar are as follows:

The sugar investigation was initiated in 1923, when the average New York wholesale price of granulated sugar was 8.4 cents per pound, as compared to the pre-war five year average (1909-1913) of 4.9 cents per pound. The abnormally high price of sugar in 1923 furnished reasonable grounds for complaint and suggested remedial action through reduction of the tariff on raw sugar.

The Tariff Commission, in a divided report of three to two, the sixth member of the commission not sitting in the inquiry, recommended in a report dated July 31, 1924, a reduction in the sugar tariff. The wholesale price of refined sugar was quoted in New York on August 4, 1924, at 6.37 cents a pound, or more than two cents below the 1923 average price.

The enormous world crop of the 1923-24 season pointed to declining prices. This tendency was confirmed by a huge increase in world production during the current crop year.

Wholesale New York price for granulated sugar May 7, 1925, was 5.48 cents a pound, as compared to 7.30 cents a pound on May 8, 1924, and an average for the year 1923 of 8.40 cents a pound.

Similarly, the current price, New York, of raw sugar—4.27 cents per pound—compares with 5.78 cents per pound one year ago, with the five-year post-war average (1919-23) of 7.38 cents per pound.

The current price of $2\frac{1}{2}$ cents per pound, duty unpaid, on raw sugar is below the average of pre-war prices. Only in the slump years of excessive production, such as 1921 and 1913, have the prices of raw sugar sunk to such low levels. As compared to pre-war commodity prices, sugar is relatively one of the cheapest articles on the American market. Refined Sugar approximately back to pre-war prices, stands out in contrast with the general food price index, which is estimated at approximately 50 per cent above pre-war.

The American farmer receives advice on every hand to diversify his crops. He proceeds to do so by going in for sugar beet culture, protected from the competitive impact of cheap Cuban labor by a tariff duty of 1.764 cents a pound on Cuban raws. The American farmer is thus in process of building up a great home agricultural industry, which at once improves the farmer's soil, enables him to diversify crops and tends to release the American people from dependence upon the foreigner for a major item in the national food supply. The farmer is entitled to share, along with the manufacturers, by direct benefits under our national policy of protecting domestic industry.

Money must be found to meet the appropriations voted by representatives of the American people. It is estimated that the sugar import duty yielded the national Treasury last year (1924) \$135,099,106 out of a total revenue from all imports of merchandise of \$545,231,859. To make the proposed reduction would cost the Treasury about \$40,000,000 each year.

In the past decade (1915-1924) the sugar duty has yielded revenues averaging slightly over 25 per cent of the total revenues for all imported merchandise. Great Britain, a negligible producer of sugar, derived 28 per cent of the total customs revenue of 1923 from the import tax on sugar. The British sugar duty has ranged from as high as 4.835 cents a pound in 1918 to the present duty of 2.33 cents a pound.

I have given exhaustive consideration to the reports submitted by the majority and minority members of the Tariff Commission as the result of their investigation into the difference between the cost of production of domestic and imported sugar. I have secured additional information upon some points from the commission and other departments.

The majority members consider these differences in the costs of production, as compared to Cuban, amount to 1.2302 cents a pound, while the minority members consider they exceed the present duty of 1.7616 cents a pound, as applicable to Cuba. These divergent conclusions are the result of different interpretations of the same basic data, approached with equal conscientiousness on both sides.

The ultimate duty of determining this matter rests upon me. The fact that the members of the Tariff Commission, after honest and painstaking investigation, have been unable to agree, and, in fact, differ widely in their conclusions, is itself enough to show the difficulties of decision and the doubts in which it is involved.

It is obvious from the reports that there is a wide variety of conclusions which can be obtained, peculiar in this industry, by alternative methods of interpretation of the same basic data. This appears to me to be fundamentally due to the wide fluctuations in the costs of production in different years and in different parts of the industry, for which the averages have been taken. These variations have been as much as 200 per cent and in itself seem to indicate that a longer period of more stable conditions is desirable before conclusions.

For instance, in arriving at a conclusion from the data in hand, it is possible to base interpretations either upon the six-year period, which embraces in its first four years a time of great distortion of costs due to inflation and deflation, or it is possible to base conclusions upon either two or three most recent years. It is also possible to arrive at different conclusions based on whether we compare costs of different regions during the time of production or during the time of marketing of the products.

It is also possible to vary conclusions by the different methods of interpretation involved in advantages and disadvantages of competition. Furthermore, as the beet sugar industry is the one for which we must have utmost solicitude, it is possible to vary conclusions by the adoption of that industry as the standard or by the inclusion of all other forms of domestic and insular production, and to still further vary them by adoption of the costs of the beet industry in particular states.

The majority of the commission assumes such combinations of these factors as to produce an average difference of cost between our domestic production and Cuban production of 1.2302 cents per pound. If, on the other hand, we exclude the first four years of the period averaged we would, on different interpretations of the other factors involved, arrive at estimates varying up as high as 1.9812, the present duty on Cuban sugar being, as said, 1.7616 cents a pound. Even on the six-year average a difference of opinion as to the other factors involved creates variables in estimates from 1.2307 to 1.6702.

After full consideration of all the facts shown in the reports of the members of the Tariff Commission I do not find that differences in cost of production are sufficiently established under present conditions to warrant any change from the present duty.

There are economic features of broad national importance, having the greatest bearing upon the welfare of our farmers and our consumers of sugar, which are worthy of careful consideration before any steps are taken to disturb present conditions. Our agricultural production today is badly ill-balanced. We produce great surpluses of wheat and of some other commodities, for which, over a term of years, we find a market abroad only with difficulty and loss and, at the same time, we produce an insufficiency and are thus forced to import some other agricultural commodities, of which sugar is by far the most important and in which, at times, there are world shortages in supplies.

Our export farmers are subject to fortuitous circumstances in other parts of the world over which we can have no control and our consumers of sugar are likewise affected in both supplies and price by fortuitous circumstances of foreign production.

It is important that, as a nation, we should be independent, as far as we may, of overseas imports of food. Further, it is most important that our farmers, by diversification of their production, shall have an opportunity to adjust their crops, as far as possible, to our domestic rather than to foreign markets, if we would attain higher degrees of stability in our agriculture.

I am informed by the Department of Agriculture that the land in our country which could be planted with sugar beets if protection to the industry is continued, is capable of producing quantities of sugar far in excess of our domestic requirements. While we cannot expect to arrive at complete direct or indirect displacement of our excessive wheat acreage by an increase in sugar-beet planting, yet, in so far as this may be brought about, it is undoubtedly in the interest of American agriculture and, therefore, of our people as a whole. Furthermore, such diversification with sugar beets has great technical values in agriculture, for its gains to fertility and other advantages. Already, beet production is expanding in such wheat-growing states as North Dakota.

These general views were supported by the representatives of agricultural organizations who met in conference at my request during the past winter.

In calculation of cost of production in the sugar-beet industry, the Tariff Commission has, of necessity, adopted average costs. An average at once implies that certain portions of the industry must be producing at higher than average costs. Due to this fact, a reduction of duty, as recommended by the majority of the commission, would appear from the figures furnished by the commission to leave 20 per cent to 40 per cent of our present beet acreage without the full measure of protection that the difference in costs of production would require.

This would result in a retrogressive rather than a progressive step toward diversification in those higher cost areas, and they embrace the whole industry in certain states. It means inevitable further increase of such agricultural produce in which we have already a surplus.

I am also impressed with the fact that there is a general tendency for consolidation of control in price and distribution in many commodities upon which we are dependent for import. I do not say that such foreign combinations in restraint of trade exist in sugar at the present time, but the whole tendency of the development of foreign sugar production is in the direction of larger holdings. In the long run there lie in this, therefore, certain dangers to the consumer which can only be safeguarded by an assurance of competitive domestic supplies.

Our annual consumption of sugar has increased by about one million tons in the last decade, until it has reached 103 pounds per person yearly. The interest of the consumer will, in the long run, be served only by the ample supply of the product. This can only be assured by the maintenance of our beet sugar industry. It must be borne in mind that the retail price of sugar to the consumer during the last six years has varied, due to the change in the volume of supply and demand, from 6½ cents to 26 cents a pound. The proposed reduction of duty amounts to one half cent a pound and, did the consumer benefit by all of it temporarily (and from the forces in motion even this is unlikely), he would, in the long run, be more likely to suffer from much larger rises in prices due to the shortening of supplies.

It appears to me that these views are well supported by our actual experience since this subject came under discussion. One year ago the wholesale price of refined sugar was about 7½ cents a pound. Today it is about 5½ cents a pound, being a decrease of over 25 per cent, and the price today is scarcely over pre-war, whereas all other foodstuffs are 50 per cent higher than pre-war. I do not believe that we can maintain such reasonable prices if we destroy our domestic industry.

Giving due weight to the above considerations, affirmative action has been postponed upon the sugar report submitted some months ago by the United States Tariff Commission. If, through decreased production or other conditions, the world market should be relieved of the weight of sugar now pressing upon it, and the consumer should again be compelled to pay the abnormally high price complained of in 1923, the change in conditions might warrant a reconsideration of the present decision to postpone action upon the recommendation offered in the majority report of the United States Tariff Commission.

Sugar Exhibit in New York

The Southern Exposition held in New York from the 11th to the 23rd of May, included in the Louisiana section a fine display representing the sugar industry. This exhibit embraced not only the production end but also the refining end of the industry, and displayed everything from the cane (pictures) to the most superfine product.

Rio de Janeiro Sugar Crop

According to the report of the Director of the Service of Inspection and Agricultural Industry to the Minister of Agriculture, the sugar crop of the 1924-25 season in the state of Rio de Janeiro, Brazil (Campos sugar district) will be 1,325,000 bags of 60 kilos, equivalent to 79,500 metric tons.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 22 de mayo de 1925. Desde entonces han tenido lugar en la situación varios acontecimientos, la mayor parte de los cuales han tenido un efecto desfavorable en la curso de los precios. Se ha hecho más y más evidente que la zafra de Cuba pasará de 5,000,000 y que aun puede llegar a 5,100,000 de toneladas de producción final, y este aumento en la zafra ha agregado, más azúcar a las existencias ya excesivas. Además de estos acontecimientos en el azúcar de Cuba, de Java ha aparecido mayor competencia, donde la cosecha, cuya recolección empezó a últimos de abril de 1925, se espera llegue a 2,000,000 de toneladas y la cual se está ofreciendo extensamente por toda Europa. Esto causó alguna vacilación de parte de refinadores ingleses en comprar azúcares de Cuba, y sus operaciones durante el periodo bajo reseña han disminuido gradualmente, y esto ha quitado del mercado de azúcar de Cuba un importante comprador.

Otra cosa a la que se ha dado considerable importancia, pero que creemos algo exagerada, es el que las condiciones del tiempo en Europa no son favorables para el mejor desarrollo de la cosecha, pues en muchas partes de Europa se ha experimentado un tiempo demasiado seco, que ha causado alguna disminución en la cantidad que se esperaba del terreno dedicado a la remolacha. Respecto a esto, las últimas noticias recibidas de los Sres. F. O. Licht, peritos en la cuestión del azúcar, dicen que las siembras de la cosecha de remolacha de 1925-26 se calcula llegarán a 2,048,946 hectáreas comparado con 2,061,618 hectáreas en la cosecha anterior, y como ya digimos antes, como el tiempo no es favorable, algunos de los peritos europeos esperan una cosecha más pequeña. Sin embargo, es demasiado pronto para poder hablar de disminución alguna en particular, pues aún quedan varios meses para el crecimiento de la remolacha y un tiempo favorable durante el resto de la estación puede fácilmente resarcir por cualquier merma según parece al presente. Sin embargo, el estado al presente ha dejado sentir algo su influencia en la demanda por azúcar de Cuba en el Continente, y Holanda y Francia han comprado varios cargamentos de azúcar de Cuba hasta a 12s 10½d costo, seguro y flete entrega puertos del Continente. En lo que respecta a la Gran Bretaña, los azúcares de Cuba se ofrecen bastante a 12s 9d costo seguro y flete entrega puertos de la Gran Bretaña para embarques de julio, pero los refinadores ingleses se muestran algo indiferentes debido a los hechos descritos antes.

El curso de los precios aquí se ha confinado a pequeños límites, pues en ocasión de nuestra última revista los azúcares de Cuba se estaban vendiendo a 2½c. costo y flete, pero desde el principio de junio, debido a las noticias desfavorables acerca de la cosecha de remolacha europea, en combinación con algunas compras de azúcar de Cuba en Europa, el mercado se puso firme y el 5 de unio el precio llegó a 2 11/16c. costo y flete. Después de algunas bajas fluctuaciones, el mercado ha bajado a 2½c. costo y flete al escribir esta reseña, a cuyo precio parece ser constante razonablemente.

El 15 de junio de 1925 el Presidente Coolidge finalmente dió su decision acerca del asunto de la Tarifa del Azúcar en los Estados Unidos. Se recordará que una mayoría de la Comisión de los Estados Unidos sobre la Tarifa recomendó se redujeran los derechos del azúcar, pero el Presidente Coolidge, en un informe extenso, ha dado sus razones de por qué cree que la Tarifa debería permanecer sin cambio en sus precios actuales. Esta decisión finalmente termina el asunto hasta que vuelva a introducirse en el Congreso nueva legislación acerca de la Tarifa, lo cual no es probable suceda durante los próximos pocos años, es decir, con esperanza alguna de que sea aprobado en el Congreso.

Refinado.—Debido a las grandes existencias de azúcar por todo el mundo, con lo cual nuestros compradores de azúcar refinado están bien familiarizados, se toman muy poco interés en la situación y concretan la mayor parte de sus compras tan sólo a requerimientos apremiantes. Parece haber un precio al cual los compradores de azúcar refinado muestran marcado interés, y es el de 5.50c., y de vez en cuando durante

el período bajo reseña algunos refinadores cotizaban 5.50c. y generalmente recibían más contratos de los que querían aceptar, dando por resultado que los precios subieron a un nivel más alto. Esto puede aplicarse particularmente a la refinería de Arbuckle, que cotizó 5.50c. por unos cuantos días durante el mes, pero después subieron el precio a 5.60c., el cual continúan cotizando al escribir esta reseña. El 17 de junio las refinerías American, Nacional, Warner y Atkins, así como varios refinadores fuera de Nueva York subieron su cotización a 5.70c. y han continuado firmes a esta base hasta el presente, pero verdaderamente no están haciendo nada al precio de 5.70c., los compradores generalmente consiguiendo existencias de otras partes a precios más bajos de 5.70c. La refinería Federal continúa ofreciendo 5.55c. para pronta entrega.

Ha habido considerable competencia entre los refinadores para la venta de azúcar refinado, y esto hizo que la Refinería California & Hawaiian en la costa del Pacífico volviera a restablecer su garantía contra la baja en los precios. Tal vez interese a nuestros lectores el saber los motivos por qué la California & Hawaiian Sugar Refining Corporation decidieron restablecer su garantía.

LA REFINERIA CALIFORNIA & HAWAIIAN RESTABLECE LA GARANTIA DE PRECIOS.—La Corporación Refinadora de Azúcar California & Hawaiian, de San Francisco, California, hace la siguiente declaración con fecha 5 de junio de 1925:

Habiéndolo solicitado encarecidamente casi todos los refinadores y fabricantes de azúcar, la C. & H. en noviembre pasado modificó sus condiciones por largo tiempo establecidas y retiró su garantía respecto a la llegada de azúcar vendido por ella. Era de esperarse que al suprimirse esta garantía resultaría en una mejoría general en el estado del comercio y en la eliminación de malas prácticas, pero en vez de eso el estado del comercio de azúcar se ha desorganizado aún más y el mal se ha extendido más que nunca, de tal modo que verdaderamente se perjudica la venta y distribución del producto de esta Compañía. La Corporación Refinadora de Azúcar California & Hawaiian ha vendido siempre su producto de acuerdo con las condiciones y lista de precios anunciados y no recurrirá a las malas prácticas tan prevalecientes hoy día. Por lo tanto, efectivo con todos los contratos efectuados desde esta fecha, su antigua garantía a la llegada es renovada en todos los azúcares vendidos por ella en los valles de los ríos Missouri y Mississippi sujeto, sin embargo, a las siguientes condiciones:

1. Que dicha garantía está sujeta a ser retirada en cualquier ocasión, sin que su retiro se aplique a los contratos ya aceptados.

2. La garantía en ningún caso se extenderá a más de treinta días desde la fecha de haberse firmado el contrato, más doce días por el tiempo del transporte, a menos que a la refinería se le impida el embarque de azúcar a su debido tiempo por motivos por los cuales el comprador no sea responsable.

Respecto a azúcares de remolacha del país, no hay ninguna para la venta en el territorio oriental, mientras que desde el oeste de Chicago a las Montañas Roquizas hay aún existencias de azúcar de remolacha de la antigua cosecha, que se está cotizando a 5.60c. bajo la base del litoral marítimo. El tiempo para la nueva cosecha de azúcar de remolacha del país ha sido por algún tiempo bastante desfavorable, debido a un largo período de tiempo seco, pero según las últimas noticias ha habido lluvias y la situación ha mejorado mucho.

Ha habido un aumento en la demanda por azúcar para la exportación, habiendo sido bastante buenos los embarques durante la segunda mitad de mayo y junio. El azúcar granulado para la exportación se cotiza generalmente a 3.60c. neto al contado, en depósito, para embarques de junio y julio.

Nueva York, junio 22 de 1925.

Tarifa

Declaración del Presidente Coolidge sobre el Informe de la Comisión de la Tarifa.—Washington, D. C., junio 14 de 1925.—La decisión adversa del Presidente Coolidge sobre la recomendación de la Comisión de la Tarifa para rebajar los derechos sobre el azúcar es la siguiente:

La investigación del azúcar fué iniciada en 1923, cuando el promedio del precio al por mayor del azúcar granulado en Nueva York era 8.4c. la libra, comparado con el precio de 4.9c. por término medio durante los cinco años antes de la guerra (1909-1913). El precio alto anormal del azúcar en 1923 fué motivo suficiente para quejas y sugirió se aplicara el remedio por medio de una rebaja en la tarifa del azúcar crudo.

La Comisión de la Tarifa, en un informe dividido de tres a dos, el sexto miembro de la comisión no tomando parte en la investigación, recomendó en un informe fechado el 31 de julio de 1924 se hiciera una rebaja en la tarifa del azúcar. El precio al por mayor del azúcar refinado se cotizó en Nueva York el 4 de agosto de 1924 a 6.37c. la libra, o sea más de dos centavos bajo el promedio del precio en 1923.

La enorme cosecha de azúcar en el mundo en la estación de 1923-1924 indicaba rebaja en los precios. Esta tendencia fué confirmada por un inmenso aumento en la producción del mundo durante la cosecha del año en curso.

El precio al por mayor del azúcar granulado en Nueva York el 7 de mayo de 1925 era 5.48c. la libra, comparado con 7.30c. la libra el 8 de mayo de 1924, y un promedio para el año 1923 de 8.40c. la libra.

Igualmente, el precio corriente en Nueva York del azúcar crudo (4.27c. la libra) se compara con el precio de 5.78c. la libra hace un año, con el promedio de los cinco años después de la guerra (1919-23) de 7.38c. la libra.

El precio corriente de $2\frac{1}{4}$ c. la libra, sin pagar derechos, del azúcar crudo está por bajo del promedio de los precios antes de la guerra. Solamente en los años de exceso de producción, como 1921 y 1913, han bajado tanto los precios del azúcar crudo. Comparado con los precios de primera necesidad de antes de la guerra, azúcar es relativamente uno de los artículos más baratos en el mercado Americano. El azúcar refinado, que ha vuelto aproximadamente a los precios de antes de la guerra, sobresale en contraste con el precio de los alimentos en general, que se calcula aproximadamente en el 50 por ciento sobre los precios anteriores a la guerra.

El hacendado americano es aconsejado por todas partes que varíe sus cosechas, y lo hace así dedicándose al cultivo de remolacha para azúcar, protegido de la competencia de la labor barata cubana por un derecho de tarifa de 1.764c. la libra en azúcar crudo de Cuba. El hacendado americano está así en vías de crear en el país una gran industria agrícola, que de una vez mejora el terreno del hacendado, le facilita variar sus cosechas y tiende a hacer que el pueblo americano no tenga que depender del extranjero para conseguir un artículo importante en las subsistencias alimenticias de la nación. El hacendado tiene derecho a participar, junto con los fabricantes, de beneficios directos bajo nuestra política nacional de proteger la industria del país.

Hay que conseguir dinero para llenar los requerimientos presupuestados por representantes del pueblo americano. Se calcula que los derechos de importación sobre el azúcar rindieron al Tesoro nacional el año pasado (1924) \$135,099,106 de un impuesto total de todas las importaciones de mercancías de \$545,231,859. El hacer la propuesta rebaja le costaría al Tesoro aproximadamente \$40,000,000 cada año.

En los últimos diez años (1915-1924) los derechos del azúcar han rendido ingresos con un promedio de poco más de 25 por ciento del total de los impuestos de todas las mercancías importadas. La Gran Bretaña, un buen productor de azúcar, recibió 28 por ciento del impuesto total de 1923 del derecho de importación del azúcar. Los derechos británicos han variado de 4.835c. la libra en 1918 al derecho actual de 2.33c. la libra.

He tenido muy en consideración los informes sometidos por miembros de la mayoría y minoría de la Comisión de la Tarifa como resultado de su investigación en la diferencia entre el costo de producción del azúcar del país y el importado. He conseguido información adicional acerca de algunos puntos de la comisión y otros departamentos.

La mayoría de los miembros de la Comisión consideran que estas diferencias en el costo de producción, comparado con el de Cuba, ascienden a 1.2302c. la libra, mientras que los miembros de la minoría consideran pasan del derecho actual de 1.7616c. la libra, aplicándose a Cuba. Esta divergencia en dichas conclusiones es el resultado de diferentes interpretaciones basándose en los mismos datos, tomadas por ambos lados con el mismo desinterés.

El deber final en determinar el asunto depende de mí. El hecho de que los miembros de la Comisión de la Tarifa, después de una investigación honesta y ardua, no han podido llegar a un acuerdo, y en efecto, difieren tan extensamente en sus conclusiones, es de por sí suficiente para mostrar las dificultades de una decisión y las dudas en que se halla envuelto.

Es evidente por los informes emitidos que, peculiar en esta industria, puede llegarse a una gran variedad de conclusiones por métodos de diversa interpretación basados en los mismos datos. Esto me parece ser fundamentalmente debido a las varias fluctuaciones en el costo de producción en distintos años y en distintas partes de la industria, para lo cual se han tomado los promedios. Estas variaciones han sido hasta el 200 por ciento y de por sí parece indicar ser conveniente un período más largo de condiciones más estables antes de llegar a conclusiones.

Por ejemplo, al llegar a una conclusión por los datos a mano, es posible basar interpretaciones o bien sobre el período de seis años, que comprende en sus primeros cuatro años una época de gran diversidad en el costo debido a las altas y bajas, o es posible basar las conclusiones en dos o tres años más recientes. Es también posible llegar a distintas conclusiones basadas en si comparamos el costo de distintas regiones durante la época de producción o durante la época de colocar los productos en el mercado.

Es también posible variar las conclusiones por los distintos métodos de interpretación implicados en ventajas y desventajas de competencia. Y lo que es más, como la industria del azúcar de remolacha es la que debemos interesarnos más, es posible variar las conclusiones adoptando esa industria como la principal o incluyendo toda otra clase de producción insular o del país, y aún variarlo más adoptando el costo de la industria del azúcar de remolacha en estados particulares.

La mayoría de la comisión asume que las combinaciones de estos factores produce una diferencia en el promedio del costo entre la producción en nuestro país y la producción en Cuba de 1.2302 centavos la libra. Si, por otra parte, excluimos los primeros cuatro años del período promediado, según distintas interpretaciones de los otros factores implicados llegaríamos a cálculos que variarían hasta a 1.9812, siendo el derecho actual del azúcar de Cuba 1.7616 centavos la libra. Aun en el promedio de seis años una diferencia de opinión respecto a los otros factores implicados crea variaciones en cálculos de 1.2307 a 1.6702.

Después de tener en consideración todos los hechos mostrados en los informes de los miembros de la Comisión de la Tarifa no hallo que las diferencias en el costo de producción están suficientemente establecidas bajo el estado actual para justificar cambio alguno en los derechos al presente.

Existen cuestiones económicas de importancia nacional, que se relacionan íntimamente con el bienestar de nuestros agricultores y consumidores de azúcar, lo cual es digno de consideración antes de dar pasos para disturbar el estado actual. Hoy día nuestra producción agrícola está malamente balanceada. Producimos un sobrante de trigo y de otros artículos de primera necesidad por los cuales, por cierto número de años, hallamos un mercado en el extranjero solamente con dificultad y pérdida, y al mismo tiempo producimos una insuficiencia de otras cosas y nos vemos así forzados a importar otros artículos agrícolas de primera necesidad, de los cuales el azúcar es en gran manera el más importante y del cual, en ocasiones, hay escasez de existencias en el mundo.

Nuestros agricultores de exportación están sujetos a circunstancias fortuitas en otras partes del mundo las cuales no podemos evitar, y nuestros consumidores de azúcar son igualmente afectados tanto en las existencias como en el precio por circunstancias fortuitas de la producción en el extranjero.

Es importante, como una nación, que seamos independientes en cuanto podamos de importaciones de productos alimenticios del extranjero. Aún más, es de lo más importante que nuestros agricultores, variando su producción, tengan la oportunidad de arreglar sus cosechas, en lo que sea posible, según nuestros mercados en el país más bien que según los mercados extranjeros si queremos conseguir mayor grado de estabilidad en nuestra agricultura.

He sido informado por el Departamento de Agricultura que el terreno en nuestro país que podría plantarse con remolacha para azúcar si continúa la protección a esa industria, es capaz de producir cantidades de azúcar muy en exceso de nuestros requerimientos domésticos. Aunque no podemos esperar el llegar directa o indirectamente a un completo desalojamiento de nuestro excesivo terreno dedicado al trigo por un aumento en la plantación de la remolacha para azúcar, sin embargo, en tanto que esto pudiera llevarse a cabo, sería indudablemente en beneficio de la agricultura americana y por lo tanto en todo y por todo en beneficio de nuestro pueblo. Además, tal variedad con remolacha para azúcar tiene gran valor técnico en la agricultura por sus ganancias en fertilidad y otras ventajas. La producción de la remolacha se está extendiendo ya en estados productores de trigo como North Dakota.

Estas miras en general fueron soportadas por los representantes de organizaciones agrícolas que se reunieron en conferencia a solicitud mía durante el invierno pasado.

Al calcular el costo de producción en la industria de la remolacha para azúcar, por necesidad la Comisión de la Tarifa ha adoptado el promedio del costo. Un promedio denota al instante que ciertas partes de la industria deben producir a un costo más alto que el promedio. Debido a este hecho, una rebaja en los derechos, como recomienda la mayoría de la comisión, al parecer, según las cifras suministradas por la comisión, dejaría del 20 al 40 por ciento de nuestro terreno actual de remolacha sin toda la debida protección que requeriría la diferencia en el costo de producción.

Esto resultaría en un paso retrógrado más bien que progresivo hacia la variedad en las regiones de mayor costo, y eso comprende toda la industria en ciertos estados. Significa inevitablemente mayor aumento en la producción agrícola de la cual ya tenemos un sobrante.

También estoy impresionado con el hecho de que hay una tendencia general para la consolidación en el manejo del precio y distribución de muchos artículos de primera necesidad de que dependemos de la importación. Yo no digo que existen al presente tales combinaciones extranjeras para restringir el comercio de azúcar, pero toda la tendencia del desarrollo de la producción de azúcar del extranjero es en dirección de retener mayor cantidad de existencias. Por lo tanto, más tarde o más temprano hay en esto ciertos peligros para el consumidor que solamente pueden ser resguardados por la seguridad de existencias del país en competencia.

Nuestro consumo anual de azúcar ha aumentado en casi un millón de toneladas en los últimos diez años, hasta que ha llegado a 103 libras por persona al año. Después de todo, el consumidor será beneficiado solamente por amplias existencias de ese producto. Esto sólo puede obtenerse manteniendo nuestra industria de azúcar de remolacha. Hay que tener en cuenta que el precio al por menor del azúcar al consumidor durante los últimos seis años ha variado, debido al cambio en el volumen del abasto y la demanda, de 6½c. a 26c. la libra. La propuesta rebaja en los derechos asciende a medio centavo la libra, y si el consumidor recibiera el beneficio de todo eso temporalmente (y según parece aun esto no es probable), después de todo es más probable que sufriría por los precios mucho más altos debido a la escasez de existencias.

Me parece que estas miras son bien soportadas por nuestra propia experiencia desde que este asunto se puso en discusión. Hace un año el precio al por mayor del azúcar refinado era unos 7½c. la libra. Hoy es aproximadamente 5½c. la libra, que es una rebaja de más de 25 por ciento, y el precio hoy día es escasamente más del precio antes de la guerra, mientras que todas las otras subsistencias son 50 por ciento más caras que antes de la guerra. No creo que podamos sostener precios tan razonables si destruimos nuestra industria doméstica.

Teniendo muy en cuenta las consideraciones antedichas, se ha aplazado la acción afirmativa sobre el informe del azúcar sometido hace algunos meses por la Comisión de la Tarifa de los Estados Unidos. Si, por la disminución en la producción o por otras causas, los mercados del mundo llegaran a verse libres de la carga de azúcar que ahora pesa sobre ellos, y el consumidor volviera a verse obligado a pagar el precio tan anormalmente alto de que se quejó en 1923, el cambio en las condiciones podría justificar volviera a considerarse la presente decisión a aplazar acción sobre la recomendación ofrecida en el informe de la mayoría de la Comisión de la Tarifa de los Estados Unidos.

Fulton Iron Works

Officials of the Fulton Iron Works Company report that the plant is running full production schedules on both sugar cane machinery and Diesel engines, sales for the first six months of 1925 exceeding sales during the same period last year by more than 40 per cent.

Unfilled orders include two of the largest cane milling plants ever built, each being capable of grinding more than 4,000 tons of cane in 24 hours at rated capacity. One of these tandems will be installed at Central Santa Marta, owned by General Mario García Menocal, Ex-President of Cuba, and the other will be installed at Central Cuba, owned by Colonel Tarafa, President of the North Railroad of Cuba and author of the famous "Tarafa Bill." Approximately 125 freight cars will be required for the shipment of these two installations to Cuba, where the factories are located.

In addition to the above machinery, the Fulton Iron Works Company is furnishing extensive additions to Central San German, owned by the Atkins interests, Central Santa Catalina, and other important factories in both Cuba and Porto Rico.

Diesel engine sales have reached a very satisfactory volume, the Company reports, and prospects for additional business in that division are good. The Company has just completed shipment of three 1,150

horse-power units to the city of Los Angeles, California, where they will be used to pump water for the city.

During the grinding season ending in May, this year, the Cespedes Sugar Company, owning and operating Central Cespedes of Camaguey Province, Cuba, produced 354,240 bags of sugar containing 325 pounds each, which is believed to be a world's record for a factory operating one grinding tandem.

Cespedes' milling equipment consists of a double crusher and eighteen-roller mill, motor driven, manufactured by the Fulton Iron Works Company of St. Louis, for a capacity of 250,000 bags.

1924 Census of Cuba Shows Gain in Population

Consul General C. B. Hurst, Havana, reports to the Department of Commerce as follows:

The population of the Republic of Cuba has increased from 3,143,210 inhabitants at the close of 1923 to 3,368,923 at the close of 1924, according to statistics recently published by the national census bureau. The total is comprised of a white population of 2,294,115, a colored population of 830,791, and unclassified amounting to 244,017. The percentage of whites is 68.10, of colored 24.66, and unclassified 7.24.

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(Revised to April 1, 1924)

T. P. MASON,
General Manager

A Map of Cuba

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May Twentieth in New York

May 20th, the anniversary of Cuban independence, was enthusiastically celebrated by Cuban residents in New York. Prominent Cubans gathered at the Consulate to offer their congratulations to the Cuban Consul. Among the visitors was Dr. Sanchez de Bustamante, Judge of the International World Court of Justice, who sailed for Europe on May 22d. At the Hotel Waldorf-Astoria many Cubans saluted the flags of Cuba and the United States. This ceremony was under the auspices of the Comité Pro Cuba, which has its headquarters at the Waldorf-Astoria.

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THE CUBA REVIEW

"ALL ABOUT CUBA"

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August, 1925

No. 9

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View of Copper Mines and Plant at "El Cobre"

THE CUBA REVIEW

"ALL ABOUT CUBA"

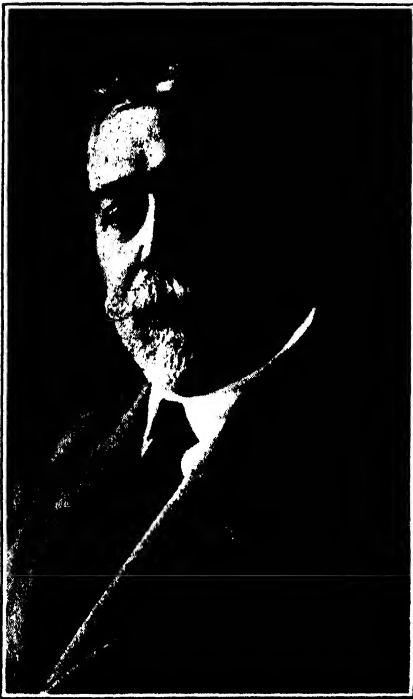
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VOLUME XXIII

August, 1925

NUMBER 9

Cuban Government Matters



Col. Carlos de la Rosa

Cuba's New Vice President

Colonel Carlos de la Rosa, the new Vice President of Cuba, is a very able and patriotic man. He is courteous and affable and is very popular with the Cuban people. It is expected that he will fill his

office satisfactorily to the nation. In a recent conference between President Machado and Congress, the President stated that in future the office of vice president will be more active than it has been in the past, and expressed his confidence in Colonel de la Rosa.

Cuba to Establish New Consulates in United States

The growing importance of commercial relations between Cuba and the United States is reflected in the proposed establishment of 12 new consulates in the United States. The foreign relations committees of the Senate and House of the Cuban congress are preparing a consular and diplomatic bill to provide expansion of both services.

Cities in the United States already named as points for new consular offices are: Birmingham, Ala.; Indianapolis, Ind.; Wichita, Kan.; Buffalo, N. Y.; Portland, Ore.; Providence, R. I.; Beaumont, Fort Worth, Houston and San Antonio, Tex.; Seattle, Wash., and Milwaukee, Wis.

Cuba Placed in Eastern Time

By a presidential decree, issued on recommendation of the Cuban Geographical Society, the entire island of Cuba is placed in the eastern standard time belt.

City Bank Issues Notice on Cuban Draft Tax

The National City Bank has sent out the following notice regarding the new Cuban tax on money sent out of Cuba:

"A new law has been promulgated in Cuba, known as the Public Works law, by the terms of which a tax of one-fourth of 1 per cent is levied on all operations which, directly or indirectly, signify the removal of money or its equivalent from Cuba to foreign countries.

"Under the terms of this law the proceeds of all collections drawn on and payable in Cuba are taxable at the rate of one-fourth of 1 per cent, before such proceeds can be remitted abroad. This tax is in addition to the prevailing exchange charge, the collection charges filed by the Havana Clearing House Association, and the bill stamp charges as now applied by the Cuban revenue laws.

"Presumably this charge should be paid by the drawee of a draft, rather than the drawer, for the reason that a draft being drawn in New York funds and payable at the collecting bank's selling rate on day of payment for checks on New York, it is incumbent upon the drawee to send the funds out of Cuba. Therefore, unless we hear from you to the contrary, we shall accompany all of our Cuban drafts with instructions that this new tax be collected from the drawee, but that if the drawee should refuse to pay it, our branches in Cuba are to waive it rather than jeopardize the payment of the bill. When the drawee refuses to pay the tax we shall charge it to the drawer.

"Checks drawn on and payable in Cuba are presumably drawn in Cuban funds and the holder of the check is only entitled to Cuban funds. If the proceeds of such checks are to be sent out of Cuba, the tax must be paid by the person authorizing such transfer, or for whose account such transfer is made."

The notice says the bank is not yet fully acquainted with all the details of the new law and is giving this advance notice so that business men may determine how to cover the extra tax when making new sales to Cuba.

Projected Revision of Customs Tariff Issue

The text has recently been issued in Habana of the proposed revision of the Cuban customs tariff, prepared by the Tariff Commission of the National Federation of Economic Corporations, a semiofficial body somewhat analogous to the United States Chamber of Commerce.

Broadly, the new project is based upon the measure formulated by the special tariff committee of the Cuban House of Representatives last July, although a good many changes have been made in the proposed rates of duty carried by that measure. The Federation has made known that in building this tariff it has been guided by the protectionist principle. It is declared, however, that it was not their intention to provide tariff protection for industries that are obviously not appropriate to Cuba, but that help would be given to those that can be expected to prosper there, by reason of the existence in the country of raw materials and competent labor.

The schedule of proposed duties carries reductions in the present rates on a good many commodities, as well as increases on others, the ruling principle in such reductions being the encouraging of home industries by affording them supplies of raw materials under favorable conditions.

No changes in the duties will affect the percentages of reductions below the general rates now granted to products of the United States in Cuba, in return for the similar special concession to Cuban sugar and other products upon admission to the United States, in accordance with the Cuban-American reciprocity treaty of 1903.

This tariff project of the federation of economic corporations is to be submitted to the Administration, and by it to the Cuban Congress for official consideration. The Cuban Congress is due to reassemble in November. In the meantime the federation has presented its proposed recommendations to its various constituent bodies within Cuba, including the American Chamber of Commerce at Habana, and representations regarding changes in the duties desired on particular articles from the duties proposed are now being heard.

[American exporters interested in the Cuban market, who have not already done so, may wish to inquire of their representatives or distributors in Cuba as to whether they have taken the necessary steps to present their interest to the federation in connection with the proposed revision of the duties on the products of particular concern to them. While no copies of the full tariff text are available for distribution, information as to the new duties proposed on particular lines of goods will be furnished upon specific request to the Division of Foreign Tariffs.]—*Commercial Attaché Carlton Jackson, Habana.*

Cuban Exposition

A Cuban Exposition is being organized in New York under the auspices of the Cuban Chamber of Commerce in the United States and with the cooperation of the Cuban Government. The Exposition will be held in the Hotel Pennsylvania, November 16th to 21st.

It will be the main objects of the Exposition to present before the American public the great economic and productive capacity of Cuba; its extraordinary purchasing power, which has placed Cuba in a prominent position as an importer of American goods; the unequalled fertility of its soil; its delightful climate and scenic beauty, which make of Cuba an ideal winter resort; and to depict the progress attained by Cuba and her people during 23 years of a Republican form of government.

A committee of prominent citizens has been appointed in New York to cooperate with a Havana committee in the organization of the Exposition.

The New York committee includes the following:

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THOS. M. DREW, *Business Manager*
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Business Manager

RAUL GARCIA
Secretary

The first meeting of the Committee was held on July 8th at the Offices of the Cuban Chamber of Commerce in the Munson Building and a very extensive programme of exhibits and entertainments was discussed.

Mr. Luis Marino Perez, the Commercial Attaché of the Cuban Embassy, attended the meeting and offered the active cooperation of the Cuban Government, in the name of Dr. Carlos Manuel de Cespedes, Secretary of State.

It is the purpose of the organizers to hold the Exposition in a typically Cuban atmosphere, to which will greatly contribute the exhibits, the music that will be provided, and the decorations, with the tropical foliage predominating.

Cuban Rail Dividend

Directors of the Guantanamo Western Railroad in Cuba have declared the first dividend to preferred shares of 7 per cent. A general meeting of the stockholders has been called for July 27. Railway operating revenues for the 12 months ended June 30 were \$1,086,747, and operating expenses were \$734,624, making the operating profit \$352,123.

Havana Correspondence

The atmosphere of the Republic today, politically, commercially, and socially, seems to be impregnated with a feeling of optimism that has become contagious. The members of the opposition party, aside from the few that may imagine that their political futures depend on a policy of pessimism, have fallen into line and are predicting success for the present administration. There is a greater degree of confidence in the immediate future than has been exhibited since the first days of the Republic. All classes of society are waking up and seem ready to help place this country in the front rank of progress. Chambers of Commerce, Boards of Trade, proprietors of hotels and business men are beginning to realize that if you want anything worth the while you've got to go after it.

The value of the tourist trade during the winter months is beginning to dawn on them. They have noted the figures that represent returns that come from the inflow of tourists during the winter months, and are now planning to get at least a small part of the spoils. They suddenly realize that the beauty of mountains, hills, valleys, elevated plateaux, and coastal plains, clothed in shades of vivid green during those months when the greater part of the United States and Canada are buried in ice and snow, have a money value. As a haven for tourists there is no country in the world that can appeal with greater charm than the Republic of Cuba. Her forests are always green. Her days are bright and sunny. There are no fogs to make life disagreeable. The resplendent open country makes a generous claim for the attention of the pleasure seeker, and of those unfortunate individuals who, looking for health and opportunity, wish to get close to nature where nature is not so cruel.

To change this dream of a tourist's paradise into a reality, we have at last begun to realize that the first essential is not only the great Central Highway that will traverse the six provinces over a line of nearly a thousand miles, but that connecting links with cities, seaports, bays, lagoons and bathing beaches, are also necessary. In addition to these we have hundreds of picturesque mountains, clothed to their very peaks with tropical forests. We have enchanting valleys, such as that of Viñales on the west; Guayabal and Guines in the Province of Havana; the Yumuri in Matanzas, the Arimao and others in Santa Clara. We have a long stretch of the Sierra de Cubitas, and its deep cut or "paredon" near the eastern terminal, with many enchanting caves of unknown extent together with wide coastal plains that separate this little known section of Camaguey from the old Bahama Channel of the Atlantic Ocean. In the south eastern section of the province we have the picturesque hills of Najasa and in the center the capital of Camaguey, founded by Velazquez some four hundred years ago.

And last we have Oriente, the largest, richest, most picturesque, and least known of any section of Cuba. Here we find the long line of the Sierra Maestra, running from Cabo Cruz on the west to the Naval Station of Guantanamo, beyond which spreads out to the north and east that wild tumble of table lands, mountains, canyons, cascades, and rushing streams, that eventually find their outlet in the Atlantic on the north, or the Caribbean to the south. Not five per cent of the inhabitants of Cuba have ever seen or even realize their beauty and marvellous charm, to say nothing of the intrinsic value of the great deposits of mineral wealth which belong to this part of Cuba, a little empire of nearly 15,000 square miles.

To bring these wonders of nature within the reach of the travelling public, the tourist, the engineer, and the man of research, we are beginning to realize that good roads are a necessity. Not alone a Central Highway, but a system of branch roads will lead into hidden sections, known only to the hunter or to the naturalist, who pushes into the out-of-the-way places of forest jungles and mountain solitudes, who enjoys them, but seldom takes the pains to describe their beauties for the benefit of the outside world.



Dr. Carlos Miguel de Cespedes

For a score of years various public officials have talked of the advantages of good roads, not especially for the benefit of the tourist, but for the wood-cutter, the cane-grower, and the general farmer. To one man alone perhaps we are indebted at the present time for a genuine, practical effort to accomplish this much desired end. We refer to Carlos Miguel de Cespedes, the recently appointed Secretary of Public Works. Nearly a year ago, perhaps even longer, this young man became enthused with the idea of giving Cuba a satisfactory system of automobile drives and public highways. He was a man of means and thus had time to devote to a subject that soon became an obsession, and which we have reason to believe will never be dropped until the stupendous work which he has laid out for himself has been accomplished.

Long before the present administration came into power, Carlos de Cespedes started engineers, draftsmen, stenographers, copyists, etc., to work on plans for a road system the beginning of which is now at hand. When he spread these plans and drawings before President Machado, in whose election he had taken a prominent part, with a statement that the work would require only a few hundred millions of dollars, he was informed that no matter how beneficial such a program might be in the end, this little Republic could not be burdened with an indebtedness of that magnitude. To this Cespedes replied that he had no thought of burdening the Government with any such obligation, but that the road system of Cuba would be built and financed as has been done in California, North Carolina and many other sections of the United States, through a direct tax imposed on the sale of gasoline and motor spirits, and that the men who use roads, either for business or pleasure, would be more than glad to contribute towards a transportation tax that in the end would give them a satisfactory system of highways.

He reminded President Machado that even with the comparatively few roads now at our disposal, we have more than double the number of automobiles and motor trucks that are found in the Spanish peninsula with Portugal thrown in; and that with our natural love of progress he was quite certain that his constructive program could be financed and completed without difficulty. Of course, if the Government felt like contributing a few millions, four or five, in the form of an ante before the game began, or as an evidence of its good wishes, such a contribution would be gratefully received.

And so began probably the greatest project for a system of highways that has ever been undertaken by a Republic of this size, and with a population of only three millions. President Machado gave, not only unstinted approval, but entered into the scheme or plan with all the enthusiasm of his nature. More than all he called to the Palace the leaders of both parties, in both branches of Congress, appealing to their patriotism and their love of Cuba for support, regardless of party affiliations. The bill was drawn up, presented, and passed by both the Senate and the House, almost without opposition. The President attached his signature and thus the greatest project ever undertaken by the Republic of Cuba became a law. Not only the building of thousands of miles of new roads, but the repair of all the old ones, that had been constructed since the days of Spanish dominion up to the present time, will be under way within the next thirty days.

Aside from the central highway which will begin at La Fe, a little coast town on the shores of Guadiana Bay, in the extreme western part of the Island, and continue east throughout its entire length, there will be fifty-one other roads of

concrete, or tar treated macadam which will connect the Capital, and various cities, with seaports and places of interest in the Province of Pinar del Rio. The Province of Havana, next in line going east, will have an equal number of side lines and connecting links with the central highway. The Province of Matanzas will have forty-nine of these branches from the main line. Santa Clara will have forty-three; Camaguey forty-four, while seventy-four branch lines will constitute the quota for the eastern Province of Oriente.

In addition to this system of main lines with its hundreds of off-shoots and branches, a number of new aqueducts are to be built with sufficient capacity to bring water in abundance to every city of any size in the Republic of Cuba. Eighty-seven cities will be repaved with belgian block, concrete, or tar-treated macadam, while the City of Havana will undergo a complete remodeling as far as the construction of parks, boulevards, ocean drives, and facilities for relieving the present traffic congestion which is becoming a serious problem for the old Havana that once stood behind the great twenty-foot wall of the early Eighteenth Century.

More important still, perhaps, for the future of the Island, will be the series of modern school buildings that are included in the Cespedes plan of public works. These will be built along the most improved modern lines and will, when completed, accommodate all of the children of Cuba, many of whom, to-day, are held back through lack of school houses and means of transportation. A few pessimists, quite naturally, have refused to believe in all of this construction, or proposed constructive plan, until something took place in the shape of actual work that they could see. This something has already happened.

Almost immediately after the passage of the bill, engineers in groups were sent into the various provinces, with instructions to ascertain what was of immediate need for the welfare of each location. These agents are to report as soon as possible to the Department of Public Works, in regard to the construction needed, and a rough estimate of cost. Secretary Cespedes, only a few days ago, made a flying trip to Miami in order to consult several American engineers in regard to details of the work in hand. Several companies in Havana have been formed, and are in readiness to take up construction work at any one of the points included in the program.

The Isle of Pines, too, has not been forgotten in spite of the fact that some of the American residents, for over twenty years, worked hard in an endeavor to separate the little isle, politically, from its natural geographical mother on the north, and the present administration has no hard feelings on the subject, since President Machado has left for Nueva Gerona, where he will spend some days in looking over the ground, and seeing that this particular offspring gets its full share of the improvements and good things that are coming to the rest of the people.

Incidentally, it is rumored that Congress will place a protective tariff on Italian marble, much of which has been brought in ballast by ships entering this port, returning to Europe with sugar. The "Isle of Pines Appeal" states that among other enterprises, "which will soon make the Isle of Pines flourish like the proverbial 'green bay tree'," is a new marble quarry soon to be started on the Sarda place and that a nephew of General Machado will join Mr. Sarda in taking out marble in greater quantities than in the past, in order to supply the demand for heavy building contracts that are being carried forward in Havana. Ten new roads will be built in the Isle of Pines.

Whether this vast program of constructive work is carried out to full completion or not, there is no doubt but what Cuba at the present time is entering on a period that is something more than the ordinary business boom. It is a unanimous effort to start the Republic once more along the road to prosperity, and which will excel any effort for its accomplishment that has been made in the past.

Sugar

The sugar season is practically ended, although eight mills located on the North coast of Oriente are still grinding, reluctant to leave good cane standing in the field,

even though the price of sugar leaves the work without profit to either planter or mill. With figures at present on hand, we know now that our output of sugar this year will exceed by 100,000 tons the five million ton mark which most planters consider the top notch of production in the sugar industry of the Republic.

The price still remains at 2.5 cents per pound which, as one of our planters the other day expressed himself, "if long continued would put many of us out of business." The amount of capital invested in the sugar industry of Cuba—most of which is American—is so great, that mill owners are loath to believe that the industry will be permitted to sink permanently into condition of absolute ruin. When we consider that this investment amounts to approximately \$1,250,000,000, it would seem a great pity that such a disaster should fall upon the "sugar bowl of the world" represented by the Pearl of the Antilles.

Traffic Receipts of Cuban Railroads

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending June 27.....	£12,783	£12,385
Last three days of June, 1925—Last two days, 1924.....	6,301	3,717
First four days of July, 1925—First five days, 1924.....	6,971	8,567
Week ending July 11.....	12,747	12,040

Earnings of United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending June 27.....	£65,083	£100,202
Last three days of June, 1925—Last two days, 1924.....	27,447	23,355
First four days of July, 1925—First five days, 1924.....	33,753	55,615
Week ending July 11.....	61,166	75,421

Havana Electric Railway, Light & Power Company

	MONTH OF MAY		5 MONTHS TO MAY 31ST	
	1925	1924	1925	1924
Operating Revenues.....	\$1,267,903	\$1,184,085	\$6,344,262	\$5,849,805
Operating Expenses and Taxes.....	632,282	605,329	3,198,578	2,978,742
Net Revenues.....	635,621	578,756	3,145,684	2,871,063
Other Income.....	33,387	24,880	172,670	141,387
Total Income.....	669,008	603,636	3,318,354	3,012,450
Interest Charges.....	89,710	91,308	448,852	457,708
INCOME, after deducting taxes and interest charges.....	579,298	512,328	2,869,502	2,554,742
Sinking Fund Requirements.....	28,052	26,740	139,346	133,061
Balance of Income.....	551,246	485,588	2,730,156	2,421,681

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	94	.....
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	99	99 ⁷ / ₈
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	99	99 ¹ / ₂
Republic of Cuba Exterior Loan 4 ¹ / ₂ % Bonds of 1949.....	89 ⁵ / ₈	.....
Havana City 1st Mtge. 6% Bonds.....	100	.....
Havana City 2nd Mtge. 6% Bonds.....	90	.....
Cuba Railroad Preferred Stock.....	81	86
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	86	86 ³ / ₈
Cuba Company 6% Debenture Bonds.....	No market	
Cuba Company 7% Cumulative Preferred Stock.....	No market	
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	95 ¹ / ₂	97
Havana Electric Railway, Light & Power Co. Preferred Stock.....	.....	115
Havana Electric Railway, Light & Power Co. Common Stock.....	188	189
Cuban American Sugar Co. Preferred Stock.....	96 ¹ / ₂	98
Cuban American Sugar Co. Common Stock.....	26 ¹ / ₂	27 ¹ / ₂
Guantanamo Sugar Co. Stock.....	4 ¹ / ₂	5

Mines and Mining

PART I

A Brief Historical Outline of the Mining Industry in Cuba

By George Reno

After a lapse of more than four centuries, there are grounds for believing that the dreams of the early Spanish conquerors who over-ran Cuba shortly after its discovery by Columbus, may in a measure be realized; and that although gold may never be found in paying quantities the mineral wealth of the Island will yet rival in value its present agricultural output. The followers of Columbus as a rule, cared little for the more quiet pursuits of agriculture, but were obsessed with a craving for the precious metals and during the first half of the Sixteenth Century, with the aid of the Indians, mined and shipped a sufficient amount of gold to greatly encourage the rulers of Spain, who were quite as persistent in their craze for the yellow metal as were the pioneers of the New World.

Narvaez, Velazquez's most active lieutenant, at the head of one hundred and fifty men in 1512, marched from Oriente westward in a wild search for gold. Samples of this metal were found in various places and sent back to Velazquez who forwarded them to King Ferdinand. The seven cities founded within the next two years were said to have been selected not owing to the fertility of their soil, or on account of advantageous locations, but solely with reference to their supposed proximity to deposits of gold.

In spite of these early discoveries, however, the amount of gold found in Cuba, although encouraging at the time, has never approached the value of other metals far more common and found some times in almost unlimited quantities. The district that first seems to have yielded a fair amount of gold was along the shores of the Arimao River in the Province of Santa Clara where the Indians panned a few hundred dollars in nuggets from the bed of the stream and this determined the location of the city of Trinidad in 1514.

The first and largest shipment of gold from the Island of Cuba amounting to \$12,437, was forwarded to Spain in the summer of 1515, and hastily converted into coin of the realm. Since the royal share of this metal was one-fifth of all produced, it would seem that the total yield during the first four years in Cuba, amounted to about \$62,000. The large quantities of gold found in Mexico by Cortes some ten years later, so enthused the Spanish conquerors in their quest for this metal, that gold mining in Cuba gradually became an abandoned industry, and by 1535 had practically ceased.

Since that time, and even up to the present, sporadic efforts have occasionally been made to find gold in paying quantities. Considerable money has been spent in opening up old diggings near Holguin in the Province of Oriente. Shafts have been sent down to considerable depths and gold has been found, but not in quantities that would induce the investment of very much capital. The search for that metal, however, has not been abandoned and occasionally we hear guarded reports from engineers that seem to give promise of another possible gold come back.

Copper

Some time during the year 1529 copper was discovered on the crest of a hill known as "cardenillo," about ten miles west of Santiago de Cuba. Mines in this vicinity apparently had been previously worked by the native Indians who did not enlighten the Spaniards in regard to their existence. The value of the find was not recognized until a certain bellmaker, returning as a passenger from Mexico, visited the mines and analyzed samples of the ore. As a result of his report the people of Santiago soon became enthused over the prospective value of the find and petitioned the Crown for experts and facilities with which to develop the mine.

Dr. Ledoux, a famous French metallurgist, carefully analyzed the ore from these mines and as a result reached the conclusion that the natives of Cuba, although apparently making no use of the copper themselves, had trafficked with the Indians of Florida, since in the many assays made of the copper relics of those tribes, it was found that the same percentages of silver and gold were contained in them as those found in the ore of the Cuban deposit. No other copper ores known have percentages of silver and gold so closely identical to those of "El Cobre."

But little was done, however, towards the development of the Santiago mines until 1540, when the Spanish Crown found itself short of material with which to make castings for its artillery, and ordered an investigation of the Cuban copper deposits. In April of 1540 a German returning from a Flemish settlement in Venezuela, visited at "El Cobre" and entered into an agreement with the town Council to work the mine. The ore yielded, according to the records, from 55 to 60 per cent of pure copper, carrying with it also some gold and silver. Samples were again sent to Spain to be tested by the Crown. In the latter part of 1541, forty negroes were set to work in the mine under the direction of Gaspar Lomanes and smelted some fifteen thousand pounds.

In 1546 the German referred to above, John Tezel of Nuremberg, by name, returned from Germany where he had carried samples of ore from "El Cobre" and reported them "Medium rich in quality and very plentiful in quantity." Tezel spent the remainder of his life, twenty years, in exploiting the copper mines of that section.

Up to 1545 Juan Lobera had shipped 9,000 pounds of Cuban copper to Spain. In the Spring of 1547 still further shipments that had arrived in Sevilla, were ordered cast into artillery to be placed in the first fort built in Cuba, known as "La Fuerza," for the protection of the City of Havana. Three cannon were cast of which one, a "Falconet," burst in the making and was perhaps responsible for the report that Cuban copper was of "an intractable quality." Don Gabriel Montalvo, appointed Governor of Cuba in 1573, was much impressed by the reports he had heard of the rich copper deposits near the city of Santiago de Cuba, and visited some of the old workings, but found the native Siboneys very reluctant to give him information in regard to mineral deposits, fearing evidently that they would be compelled to work in them. A copper deposit was soon afterwards found near Havana, and samples of ore were forwarded to Spain with a request that fifty negroes be detailed to exploit the mine. The quality of the ore was apparently satisfactory for the casting of cannon, and the King ordered that it be used as ballast in ships returning from Havana in order to furnish material for the Royal Spanish Navy.

In 1580 some mining was done, but the find soon proved to be only a pocket of small dimensions, and the cost of transportation to Havana was declared prohibitive, in spite of the fact that it showed, "a fifth part good copper." Other copper mines were afterwards reported in the neighborhood of Bayamo, near the southwestern part of the Province of Oriente.

In May, 1587, although but comparatively little copper had been taken from "The El Cobre" mine, due largely to lack of food crops in the vicinity with which to feed the slaves, the Governor reported that, "There is so much metal, and the mines are so numerous that they could supply the world with copper; and only lately there is news of a new mine of even better metals than the others."

Effective work in these mines began in 1599. The much needed protection from the incursions of pirates and privateers, that had long preyed on Spain's possessions on the West Indies, revived industries of all kinds in Cuba, especially copper mining and shipbuilding. Joan de Texeda, who had been commissioned by the King to go to Havana and do what he could towards protecting the rich shipments of gold and copper that were being sent from Mexico to Spain, against the attacks of the English Admiral Drake, sampled Cuban copper and pronounced it "excellent." On the site of the present Maestranza building now devoted to the Department of Public Instruction, Texeda established a foundry where he cast "the copper into both cannon and kettles."

The mining of copper with profit depends on the price of the metal on the market, on the cost of extracting and transporting the ore to the smelter. This, of course, is true with all metals, hence it frequently happens that mines containing abundant ore are not worked, since the cost of production, when taken into consideration with the market price, eliminates the possibility of profit. During the past century the mines of "El Cobre" and vicinity, the extent of whose deposits, although unknown, seems to be almost unlimited, have been worked at such times and to such an extent as the market price of the ore would seem to justify.

Indications such as boulders, which loosened through seismic disturbances, or erosions, seem to have rolled down from their original beds, and occasional outcroppings of copper-bearing ore are found in every Province of the Island, although up to 1790 but few explorations worthy of mention were made outside of the Province of Oriente. The demand for metals of all kinds during the last war, especially chrome, manganese, and copper, resulted in more or less prospecting throughout the Island, outcroppings of copper being found in several places in the Organos Mountains of Pinar del Rio.

Denouncements of copper, or claims resulting from traces found, have been made also in the Isle of Pines, and at Minas, only a short distance from the city of Havana in that Province. Copper claims have been registered near Pueblo Nuevo too, in the Province of Matanzas. In the Province of Santa Clara claims have been recorded in the district of Cienfuegos, Trinidad and Sancti Spiritus. Several very promising copper mines have been opened up in Santa Clara and will probably yield a profit, if worked under intelligent management and with the judicious employment of capital. In the Province of Camaguey also copper ore has been found near Minas and at several places along the line of the "Sierra de Cubitas." In Oriente copper claims have been registered near Holguin and Bayamo, while that of "El Cobre," of course, has been famous for its yield of ore since the days of the Spanish conquerors.

Copper in Pinar del Rio

The excessive demand for copper resulting from the war in Europe, together with the high prices offered for that metal, recalled the fact that many years ago, Spanish engineers and prospectors, poking over the hills of Pinar del Rio, frequently found small outcroppings of copper ore, and in some cases old shafts where the ore had been removed and carried to the coast on mule-back. The low price of copper in those days and the scarcity of labor following the abolition of slavery at the conclusion of the "Ten Year's War," discouraged serious work on the part of old timers, traces of whose efforts still remained at various points along the northern slope of the Organos Mountains.

The first record we have of the exploration of the mineral zone, in which the most famous copper mine of this Province was afterwards discovered, dates back to 1790, but resulted in no definite or profitable work. An English company of which General Narciso Lopez was president, during the early part of the 19th Century made some explorations in the district of "El Brujo" and "Cacarajicara," located in the mountains back of Bahia Honda. The defeat of Lopez's revolutionary forces and his subsequent execution in 1881, put an end to the effort.

Shortly after the Spanish-American War Mr. Astor, an American millionaire, became interested in the copper deposits in Pinar del Rio, which resulted in the establishment of several claims, none of which, however, were developed. Claims also have been located near Mantua, Sabalo, Viñales, Las Acosta, Santa Lucia, Pinar del Rio, and at various places between La Esperanza and Bahia Honda on the north coast. Some twenty years ago a Mr. Argudin located claims known as Regenda and Jesus Sacramento, the former only two kilometers from Matahambre. A small amount of preliminary work was done but apparently proved unpromising.

The Matahambre Mine

In 1912 a native on horseback, searching for some strayed cattle encountered a severe storm of rain and wind and took refuge in a crevice or gap between two

elevations, until the blow was over. On mounting his horse he noted some odd looking pieces of colored rock, picked up a few samples and put them in his saddle bag. These were later delivered to Alfredo Porta, a well known citizen and politician of Pinar del Rio. They proved to be copper ore and Sr. Porta at once denounced or layed claim to a section of territory in that district, located some eight kilometers south west of La Esperanza on the north coast of the Province.

Soon after he succeeded in interesting Mr. Luciano Diaz, a former Secretary of the Treasury, and a man of some means. Messrs. Porta and Diaz sent samples of the ore to New York City and secured the services of C. L. Constant Company, who sent one of their experienced mining engineers to the district where he made a careful survey of that claim and informed the owners that in his estimation "Matahambre" was well worth the investment of any amount of capital since the grade of ore, and the amount exposed through Constant's preliminary work, was sufficient to place "Matahambre" in the list of good paying mineral properties.

Work began at "Matahambre" in the early part of 1913, under the technical direction of the Constant Company of New York. During the first year a number of galleries, only a short distance below the surface were thrown out in different directions. The ore found in these galleries was very promising; the first two carloads shipped by rail from the city of Pinar del Ro to Havana sold for \$40,000, an amount sufficient to pay for all the preliminary work that had been done. In 1915 a shaft was sunk to a depth of 100 ft. and afterwards was carried down to 400 feet where it reached the approximate level of the sea. Later still this shaft was sent 150 feet further.

The ore taken out at the 400 foot level, proved to be the highest grade of any yet found, although it is said that no ore was encountered at any depth that was not of sufficient value to more than pay for cost of mining. Incidentally, this ore assayed gold and silver also to the value of \$2 per ton.

In 1919 six levels known as 5-6-7-8-9-10 were in operation, all yielding good paying ore. Incidentally there are some fifteen different varieties of copper ore that have been taken from various sections of the Matahambre Mine. The ore for some time was conveyed to the docks at Santa Lucia with mule teams and motor trucks. These were eventually replaced by wire cables, and the ore sent down to the coast by gravity, greatly decreasing the expense of transportation. Splendid wharves and receiving sheds, dumps, etc., have been built at Santa Lucia, whence it is lightered out to deep water anchorage. An average of 300 tons a day are removed and carried to the landing. Some 8,000 tons a month are shipped in steamers with facilities to take on board about 800 tons a day. This mineral is consigned to the United States Mineral Refining Company. In 1916, 33 steamers carried seventy-five thousand tons of mineral from "Matahambre" to this Company.

Quite a little city sprung up around the mine and 2,000 men were given employment by the Company. Comfortable quarters have been erected for the officials, employees and other members of the force. A large amount of ore was mined in 1918 and held for the completion of a new concentration plant which now enables the Company to utilize ore that under war freight rates would not be profitable to export. Following the demise of Mr. Luciano Diaz, his son Antonio, assumed control and is today carrying on the work.

Incidentally, a rather odd and economically serious incident is said to have occurred in connection with this mine only a short time ago. It would seem that many of the veins which in copper mining seldom prove permanent, were apparently coming to an end. This meant a serious calamity for "Matahambre." The engineers for a while became rather discouraged in their search for new leads, or deposits, of good ore. Fortunately, at a moment when hope was slipping into a possible despair, a new lead was located by one of the men immediately under the cook house. A very little preliminary work disclosed it as a valuable find of more high grade ore and in large quantities, so that "Matahambre" still goes on.

At the time of the closing of the Spanish regime in Cuba, fourteen mining claims had been registered in the Province of Pinar del Rio. Between 1909 and 1911 two hundred more claims were denounced, including those of the English Company headed by Mr. Astor, which numbered forty-eight. From 1911 to 1918, 2,970 claims were registered in the Bureau

of Mines. A large portion of the interest in copper mining in Pinar del Rio was undoubtedly the result of the wonderful wealth that has come from "Matahambre," the ore from which mined in 1916, was valued at five and a half million dollars.

Iron

Not until the early part of the Nineteenth Century did the enormous deposits of iron ore found throughout the mountain districts of Oriente, present themselves to the outside world as a profitable, commercial proposition. Nearly all of the great iron deposits of that section lie within a few feet of the surface, and on the southern slopes of the Sierra Maestra, it is necessary only to scrape the dirt from the side of the hill, take out the ore, and send it down to the sea by gravity. Similar conditions exist at Mayari mines on the north coast, just back of Nipe Bay, where the deposits need nothing but washing with cold water. The soil being thus removed at little cost the iron is ready for shipment to the smelters of the United States.

In spite of the fact that this ore was found to be equal to the best Swedish, and that nature, in her own laboratories, has supplied the requisite amount of nickel and manganese, making the mines of Oriente perhaps the most valuable in the world, but little attention has been paid to this marvellously rich soil of mineral, beyond the few who are drawing dividends from the industry. The purchase of the American Iron Company at Daiquiri, for \$32,000,000, however, has called the attention of mining interests in the United States to the fact that millions of tons of untouched ore still lie in the eastern Provinces of Cuba. Twenty-five per cent. of the area of Oriente contains wonderful deposits of ore, mostly iron, and awaits only the necessary capital to place it on the markets of the world.

This nickeliferous iron ore in which the presence of nickel, so essential to the making of steel, has been contributed by nature, in just the right proportions, is found in large quantities also in the Provinces of Camaguey and Pinar del Rio. The extent of these mineral deposits is not yet known, but suffice it to say that millions of tons are in sight, and awaiting only cheap transportation to bring them into the markets of the world, where the grade and quality of the ore will undoubtedly command satisfactory prices.

On the south side of the Sierra de Cubitas, in the Province of Camaguey, a distinctly marked zone of excellent iron ore runs parallel to the main chain of the Cubitas mountains for many miles. Grass-covered hills, rising more or less roughly from the surface, seem to be composed of solid masses of iron ore. So great is the value of this mineral that the North Shore Railroad of Cuba, which extends from Caibarien in the Province of Santa Clara, throughout the entire length of the Sierra de Cubitas, its eastern terminus on Nuevitas harbor, was primarily intended as a means of conveying iron ore from the Cubitas beds to the sea coast. The ties of this railroad throughout the mineral zone in many places are tamped with broken lumps of iron ore.

In the western portion of the Organos Mountains in Pinar del Rio, other deposits of nickeliferous iron have been claimed and registered, although the cost of building a railroad to deep water on the north shore of this Province up to the present, has prevented the development of these mines. One quite important claim is located twenty miles southeast of the Arroyo de Mantua, near the western extremity of the Organos.

With the construction of the new North Shore road of Pinar del Rio, which forms an important part of the plan just submitted to Congress by the present Secretary of Public Works, and was approved unanimously by that body, it is quite probable that not only iron, but many other constructive materials, including asphalt, will soon be brought within touch of the sea coast for shipment to the United States and Europe.

Cuban Dominican Sugar Co.

On July 9th the directors of the Cuban, Dominican Sugar Company elected Thomas A. Howell chairman of the board and George H. Houston was elected president of the company.

Gonzalez to Be Cuban Consul at Boston

Among the Consular appointments announced at the Presidential palace June 29 were: J. M. Gonzalez, Counsul at Boston, Mass., and Felix Gronlier, vice Consul at Key West.

Cuban Commercial Matters

Cuban Markets for American Goods

PART I

*By Julius Klein, Director,
Bureau of Foreign and Domestic Commerce*

Cuba, in spite of her relatively small size, annually purchases abroad goods to the amount of nearly \$300,000,000, a considerable portion of which is furnished by the United States. In 1923 we furnished \$181,616,072 out of a total of \$268,849,706, or 67.5%. Figured on the basis of the estimated population of 3,143,210, the 1923 importations represented \$86 per capita, a figure exceeded by few countries of the world and by none in Latin America.

The high per capita importation is occasioned by the fact that the Cubans enjoy a relatively high purchasing power, and a large proportion of their requirements must be imported. Cuba is essentially a one-crop country, her energies being devoted largely to the production of sugar. Sugar and its by-products make up approximately 85% of the total export trade of the island. Tobacco is second, comprising about 10% of the total, but is important by reason of the large number of people which it employs.

So great has been the increase in the purchasing power of her people with the expansion of her sugar industry that Cuba now ranks sixth in our export trade, being exceeded for the year 1924 by only the United Kingdom, Canada, Germany, France and Japan. Our exports to Cuba in 1924 amounted to \$199,779,279, or 4.3% of our total exportation.

With her economic welfare so largely dependent upon one commodity, the price of sugar necessarily has a direct bearing on the purchasing power of the country. The sale of sugar at profitable prices is reflected in large purchases abroad, while low prices result in a lessened circulation of money and a consequent curtailment of purchases on the part of the large percentage of the population which is directly dependent on the sugar industry.

Cuba produces a little more than one-fifth of the total world sugar production and furnishes about one-half of the sugar consumed in the United States. The industry represents a tremendous investment, and a considerable part of the interested capital is from the United States. Over 60% of the Cuban crop of 1923-24 was turned out by American-controlled mills. The total value of the crop was \$378,792,263.

The Island's purchases from us cover a wide variety of products, but the largest single group consists of foodstuffs, which through a series of years have constituted 35% of her total importations. Although Cuba is plentifully endowed in both soil and climate for the production of practically all essential food commodities, its energies have been concentrated on sugar and tobacco, to the neglect of most articles of ordinary food required for the maintenance of her population, and the bulk of food requirements must be imported.

ECONOMIC SITUATION

Economic conditions have shown a steady improvement during the past two years, and although there were certain unfavorable factors at various times which acted as deterrents to business, these were not extended and did not greatly affect the situation as a whole. They did, however, interfere with the normal movement of merchandise and caused a slackening of business in some lines which was not compensated by subsequent purchases. With the improved position and purchasing power of the Cuban market, there is a noticeable tendency on the part of some with limited experience or else new to the market to forget the experiences of 1920 and to extend credit without thoroughly examining the risk and to an extent not warranted by conditions. Any such tendency to laxity in credit matters is to be discouraged, for although condi-

tions are favorable they are not such as to warrant the use of too liberal credit terms or the extension of terms without proper investigation.

While a considerable reduction was made in the old indebtedness owed by many Cuban firms as a result of the collapse of 1920, there is, nevertheless, a considerable sum still owed on these old accounts, and it will probably take another good year such as 1924 to wipe these out. Many, however, made a substantial reduction of their accounts in 1924 and are now out of debt for the first time in four years and can devote such profits as they make to productive enterprises. The increased activity in 1924 in business circles was reflected in the transactions of the Habana Clearing House, which exceeded those of 1923 and 1922 by 27% and 73%, respectively. Too optimistic deductions should not be made from them, as they also reflect the greater use of checks as a medium of payment and do not represent a proportionate increase in the volume of business transactions.

STATUS OF THE FLOATING DEBT

The recent action of the Cuban Congress in passing the bill providing for the payment of the balance due on the floating debt claims, and its signature by the President, should enable a further reduction to be made in obligations owed by merchants and stimulate business as the installments are paid. Under the terms of the \$50,000,000 loan of 1922 approximately \$17,000,000 became available for the payment of claims against the Cuban Government arising out of the crash of 1920. This amount was not sufficient for the settlement of all claims presented and approved by the commission for the examination and audit of the public debt. Installments were paid to the extent of 70% of the claims against all other departments. It is estimated that approximately \$14,000,000 is required to meet the balance of the payments against this debt. To take care of this balance a law was passed and signed by the President on February 18, 1925, authorizing the use of \$3,500,000 from the surplus of the 1923-24 budget for the immediate payment of a 25% installment on these claims, the remainder to be taken care of in the four succeeding budgets in equal installments.

A large number of commercial houses have been holding evidences of approved claims against the Government and have advanced these as the reason for non-payment of debts to creditors in this country. These have also been offered in settlement of such debts. However, this meant simply the transfer of a claim from the Cuban concern to the concern in this country. In some cases such a settlement was taken, usually at a discount, and a number of these approved claims have been acquired by firms in this country, which consequently have a direct interest in the law giving these claims a legal status by providing for their settlement. This law also removes, at least in a measure, the excuse of some debtors for non-payment of old obligations.

Giving to these claims definite legal status should have a favorable reaction on business. The putting into circulation of the immediate payment of \$3,500,000, and more than \$10,000,000 during the next four years, should have a favorable effect. Many merchants will now be able to adjust their old indebtedness, buying will be stimulated, and the holders in this country of claims taken over from Cuban debtors will be able to realize on them.

BUSINESS OUTLOOK

The commercial outlook in Cuba at the beginning of the year was regarded as satisfactory. Most observers agree that fundamental conditions are sound, that no inflation exists, and that a moderate profit from the sugar industry would be more favorable to the development of Cuban business than extremely high prices. The low price of sugar has caused a feeling of conservatism on the part of those directly connected with the industry. The present price, around 3 cents per pound, is close to the cost of production, but it is felt that if prices go no lower most of the mills will operate at a profit and many look for an improvement in prices as the year

progresses. The production of sugar from this year's crop is expected to materially exceed the output of last year.

The tobacco industry enjoyed a good year in 1924, and at the outset of 1925 plantings were normal with prices good. This was decidedly encouraging in view of the comparatively large crop which was harvested in 1924.

PURCHASING SEASONS IN CUBA

A study of our exports to Cuba during the past 12 years indicates that the season of heaviest shipment is during the last quarter of the year, the highest single month being November. On the other hand, shipments are lowest during July, the variation in averages being between \$18,880,066 in November and \$13,733,734 for July. Shipments continue heavy into January but fall off in February and March to increase again in April and May. After the low point in July shipments gradually increase to the high point in November. Taken by quarters, the last of the year is the highest, the second next, and the other two about equal.

The seasonal movement of goods in the final quarter is accounted for by the accumulation of stocks in preparation for the sugar-grinding season, which starts in December and gets into full swing in January. It is also swelled by the movement of holiday merchandise and repair and replacement parts for the sugar mills, although a large portion of the latter moves in the preceding quarter. With the turnover of stocks during the first quarter of the year, shipments fall off somewhat to be followed by another large movement during the second quarter when stocks are replenished.

Although July is normally the low point for shipments during the year, this was not true in 1924, when July shipments held up remarkably well and, in fact, were exceeded by only four other months. An index of the increased trade during July of last year may be had from the movement of goods over the Florida East Coast ferry. While ordinarily one ferry daily is sufficient to carry the goods entering Cuba by this means during the summer months, it was found necessary during the last season to operate two. The larger movement of goods during the off season was probably occasioned by the large amount of new construction going forward, as well as by the early movement of replacement and repair materials for the sugar mills, although some of it was probably a reaction from the previous month when the railroad tie-up halted distribution throughout the interior of the island.

The 1924 movement of goods during November and December was not up to the average, although shipments in October were high. This may be attributed to the slump in sugar prices and the uncertainty caused by the quotations of sugar futures.

EFFECT OF SUGAR PRICES ON PURCHASES

The price of sugar during the grinding season—roughly from December to June—has a direct bearing on the purchasing power of the Cuban people. On the other hand, it is affected to a much less degree during the period between the grinding of the crops. This is occasioned by the method of settlement for the crop between the mills and the growers—the “promedio” system.

About 80 per cent of the cane grown in Cuba is raised by planters who make deliveries to near-by mills under contract. The balance is raised by the sugar-mill companies themselves. The basis of settlement for this contract cane is a figure set fortnightly by the Government, which figure is based on the market price of sugar during the half month in which delivery is made. Thus, the planters producing over three-fourths of the cane of the island have a direct interest in the price of sugar during the grinding campaign, as it determines the amount which they receive for their cane. During the balance of the year the price has no direct bearing on the amount received by the planter, except for such special contracts as extend into this period. The prices received by the mills as their share of the operation have little effect on the purchasing power of the people, as they are largely foreign owned and employ in Cuba only such funds as are necessary for the payment of salaries, improvements, and routine expenses.

The producers of sugar, as stated above, realize on their crops in the first half of the year; the tobacco and fruit growers, on the other hand, receive their returns during the summer months, the former from May to October and the latter from May to August. The growing of tobacco and fruit is confined to limited areas, and the money put in circulation through the marketing of these crops is small in comparison with the yield from sugar. Nevertheless, these returns are received in the so-called "dead season" and tend to stimulate purchases in the period of slow movement. Also, it should be remembered that there are a considerable number of persons other than growers who depend on the tobacco industry as a means of livelihood. The people engaged in the manufacture of tobacco receive their returns more or less steadily throughout the year.

EFFECT OF TRANSIENT LABOR ON SEASONAL MOVEMENT

The labor supply in Cuba is not sufficient to harvest the sugar crop, and a large number of laborers are imported yearly, mostly from the other West Indian Islands, to assist in the cane cutting and for work about the mills. No statistics are available to show just how many of these laborers are imported, but their number runs into many thousands. The presence in Cuba of this large number of transient laborers tends to swell the movement of necessary commodities during the season when the sugar crop is being harvested and to augment the seasonal movement of essential merchandise. The census of 1919 enumerates 39,137 West Indians in Cuba at that time. As this census was taken at a season of the year when there would naturally be a far less number of laborers in the country than during the harvest period, this figure can not be taken as an accurate index of the total number brought to Cuba each year. The total for a given year would probably be considerably in excess of the census figure given above. Laborers are also brought in from other parts of the world, and an effort is being made at present to interest other nationalities, particularly the inhabitants of the Canary Islands to come to Cuba for this work.

These immigrants are mostly field workers, although some of them are employed in and about the mills, and they earn relatively high wages. The field workers can earn from \$2 to \$5 per day, depending on the amount of cane cut. The wages are based on the output rather than on straight time. A considerable portion of these wages is expended in Cuba during the time the laborers are employed there, the remainder being carried back home by them when they are repatriated at the end of the season. One of the reasons assigned for the large movement of goods in the off season of 1924 was the presence in Cuba of a large number of these laborers who found employment during the summer months, mostly in construction work, and remained there during the entire year.

The seasonal purchasing is not so marked as might be expected, partly because of the fact that a considerable portion—more than one-third—of Cuba's total importations consists of food and food products and partly because the movement of machinery and repair and replacement supplies for the sugar mills takes place in the off season. Thus, the seasonal movement of the latter, which has not direct relation to the purchasing power of the people, tends to hold up the monthly figures which otherwise would be low.

The demand for foodstuffs is more or less constant during the year and, of course, it must be met largely by importations. This movement is well sustained throughout the year, and, in fact, some items show the heaviest movement in the summer months. For instance, in 1924 such commodities as bacon, pickled pork and beef, hams and shoulders, and eggs showed a relatively heavy movement during the summer months.

In studying the importations of these commodities through the course of a year a change will nevertheless be noted. This occurs not so much in the quantity of goods imported as in their character. During the period of more ready money, when the sugar crop is being ground, luxury articles and those of relatively high value make

up a considerable share of importations, while during the off season the character of imports changes to those articles of less value.

WHERE CUBA BUYS

The United States is a natural supplier of the Cuban market, inasmuch as it produces just those things which Cuba needs. It is by far the largest supplier of Cuba's requirements. The United States enjoys a preferred position in this market, particularly for the following reasons: Unusual commercial ties fostered by a reciprocity treaty which gives the United States a reduction of from 20 to 40 per cent in the Cuban customs tariff; large American investments which approximate nearly a billion and a half dollars and exceed those in any other Latin American country; special facilities for trade and intercourse, such as established connections in commercial lines which extend to practically every class of business, a common monetary system; direct telephone connection; and a direct freight service, via Key West, to all points in Cuba.

The importance of this last-named factor is great, as freight can be shipped from any point in the United States to any rail point in Cuba with little delay and without breaking bulk. The merchandise sent over this route is largely goods of a perishable nature and other goods where the time element is of importance. It is also used for the shipment of heavy machinery which can be loaded on a flat car without the expensive crating and handling which would be required in case it went by steamer. Not only is the initial expense lower, but the absence of any handling until it arrives at its destination lessens the possibility of breakage.

During 1923, of our total exports to Cuba, 20 per cent were shipped through the Florida customs district, practically all of which went by way of the Key West Ferry. In 1922 and 1921, 21 per cent and 28 per cent, respectively, went via this route. By far the larger part of the shipments to Cuba go by way of New York, that port handling approximately one-half of the total shipments. New Orleans is third in point of shipments and the merchandise forwarded through the three customs districts above mentioned comprises about 85 per cent of the total.

That the United States has taken advantage of these special factors operating in her favor goes without saying and is amply demonstrated by a study of the trade figures for the past quarter of a century. For the four years, 1899 to 1902, our share of Cuba's import trade amounted to 45 per cent of the total, while Spain furnished 15 per cent, the United Kingdom 14 per cent, France 6 per cent, and Germany 5 per cent. The relative standing of these countries for the four-year period 1910-1913 and the five year period 1919-1923 is shown in the table following.

DISTRIBUTION OF CUBA'S FOREIGN TRADE AMONG PRINCIPAL COUNTRIES

COUNTRIES	4-YEAR AVERAGE, 1910-1913		5-YEAR AVERAGE, 1919-1923	
	Imports	Exports	Imports	Exports
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
United States.....	52.4	84.9	70.9	80.3
United Kingdom.....	12.3	6.0	4.2	10.9
Germany.....	6.9	3.4	1.4	(¹)
Spain.....	7.9	(¹)	4.4	(¹)
France.....	5.3	1.2	2.9	1.9

¹ Less than 1 per cent.

Germany's percentage dropped considerably after 1914, but that country is now making strenuous efforts to regain its lost position. Spain's loss, while less than that of the other European countries, has been over 60 per cent. The losses of these countries have been the gain of the United States, and we have enlarged our share from 45 per cent at the beginning of the century to 70 per cent for the five-year average 1919-1923.

The actual figures of imports by countries of origin for the years 1902 to 1923 are given in the following table:

IMPORTS INTO CUBA BY COUNTRIES OF ORIGIN
(In thousands of dollars)

YEARS	United States	United Kingdom	Germany	Spain	France	Total
1902.....	25,243	9,099	3,612	9,542	3,046	60,584
1903.....	25,703	10,800	3,922	9,133	3,372	63,465
1904.....	32,929	12,695	5,030	9,440	4,225	77,029
1905.....	43,118	13,508	5,916	10,179	5,243	94,971
1906.....	47,602	14,081	6,404	9,018	5,573	98,019
1907.....	51,309	15,323	7,592	9,479	6,045	104,461
1908.....	41,577	11,724	7,172	7,455	5,030	85,219
1909.....	46,339	12,260	6,587	8,020	5,304	91,447
1910.....	54,569	12,292	6,543	8,680	5,515	103,675
1911.....	59,962	13,699	7,235	9,047	6,203	113,056
1912.....	64,632	15,398	8,431	9,312	6,253	123,202
1913.....	75,288	16,066	9,674	10,033	7,322	140,133
1914.....	68,623	12,379	5,034	9,939	4,632	118,202
1915.....	90,462	15,288	800	10,817	4,879	140,844
1916.....	153,020	14,231	26	14,409	5,931	215,962
1917.....	189,875	15,377	1	15,642	6,289	256,085
1918.....	219,272	9,155	.....	10,393	7,044	294,632
1919.....	271,506	8,816	198	15,947	9,929	356,631
1920.....	404,386	17,704	2,880	27,974	16,879	557,017
1921.....	263,516	17,068	5,375	13,654	9,356	354,403
1922.....	120,259	9,106	3,547	8,356	5,958	180,303
1923.....	181,616	12,972	7,937	13,213	8,390	268,850

In addition to the countries listed in the table, competition is experienced in certain lines from Canada, Denmark, Norway, and other countries, but this competition is confined to definite commodities and their total sales do not bulk large in the aggregate. However, it is important and is a keen factor in the sale of many commodities.

EUROPEAN COMPETITION

Competition from Europe is being experienced in many lines, and the leading trading countries are making a determined bid for the share of the business which they were receiving before the war. A great deal of progress has not been made in this direction, as shown in the average percentages of trade. However, it is worthy of note that the share of the four leading European countries in Cuba's import trade was greater in 1923 than for the five-year average 1919 to 1923, indicating that advances are being made. Germany, which dropped completely out in 1918, had won back 3 per cent of the total import trade in 1923. Deliveries of orders placed in Europe are in many instances slow, and this has often reacted to the disadvantage of the suppliers and prevented repeat orders.

United Kingdom.—The United Kingdom furnished 4.8 per cent of Cuba's import in 1923. Competition from this source is felt particularly in textiles, where in the high-grade materials it occupies first position. However, in the medium and low priced lines, the supremacy of the United States is not seriously challenged. The United Kingdom is also furnishing paints and varnishes, iron and steel materials, auto tires, tractors, porcelain tiling, enameled bathroom and toilet fixtures, and certain foodstuff items, such as rice, biscuits, and preserved and dried fruits.

Belgium and Luxemburg.—Competition is encountered from Belgium, and to a lesser degree from Luxemburg and Germany, in the iron and steel market. This has been especially noticeable in bars, plates, structural shapes, wire nails, and rails. Competition in these lines is principally on a price basis, as American firms have the advantage in quality and quicker delivery. European prices in these lines have shown a rising tendency but are still lower than American prices.

Germany.—Germany is furnishing considerable enameled ware, such as bathtubs, washbasins, and other articles with an iron base, and a large part of the shelf hardware and cutlery. Miscellaneous shipments of paper, electrical accessories, watches, and the cheaper grade of jewelry, pianos, typewriters, glassware, fertilizers, and office supplies are now being received from this source. France is furnishing a considerable portion of

chemicals, drugs and pharmaceutical products, fertilizers, jewelry, and certain foodstuffs. During the past two years the competition in the automobile-tire trade from this source caused considerable concern, but American prices have now been adjusted to meet this competition.

Spain.—Spain is meeting the demand for certain classes of canned foods and for olive oil, certain preserved and dried fruits, preserved meats, olives, vegetables, and fish.

Sweden, Norway, and Denmark.—Considerable quantities of cement and building stone are being received from the Scandinavian countries, which seem to be able to deliver these bulky commodities at lower prices on account of cheaper freight rates offered by ships making the trip in ballast. Denmark ships considerable quantities of butter to Cuba.

OTHER COMPETITION

In addition to the competition encountered from European countries, some is also felt from other nations. Canada has a good market in Cuba for flour, codfish, potatoes, and a few other commodities. During the past year important shipments of canned vegetables, canned and fresh fruit, beans, and onions have been received from Chile. In view of the increased interest manifested in this development in Chile, this competition should be watched by American producers and exporters of these lines. Rice is now being supplied largely by India, China, and Japan, the United States having dropped from the high position held in this trade as a result of the war. Argentina is supplying the market with some corn and dried beef, but the demand for the latter is supplied largely by Uruguay.

NEW PARCEL-POST AGREEMENT

An agreement has recently been reached between representatives of the Cuban Government and the United States looking to the extension of the parcel-post service between the two countries. At the present time the limit on packages shipped to Cuba is 4 pounds 6 ounces, which has proved to be inadequate. Under the new agreement this limit is raised to 11 pounds, and the change will no doubt have a beneficial effect on our mail shipments to Cuba if it is ratified and carried into effect. To compensate the Cuban Government for the additional expenses to which it will be put, since by far the greater proportion of the packages will flow into Cuba, it is provided that the United States shall reimburse the Cuban Government for a portion of the expense of handling the parcels. This compensation will be of use in enabling the Cuban Government to increase the effectiveness of its postal organization. Packages for shipment to various points throughout the island will be separated and put in pouches before they leave this country and will be sent directly to their destinations, thus eliminating the delay that would occur in case they were shipped to Habana and distributed from that point.

It is expected that the raising of the weight limit of these shipments will tend to materially increase this method of shipment and result in the movement of several hundred thousand additional packages to Cuba by this method. The United States Post Office Department estimates that this movement will average 50,000 packages a month. The new weight limit more than doubles the amount of merchandise that can be sent in one package and will undoubtedly serve to divert to this country some of the trade in small specialties which is now being placed in Europe.

The convention is to go into effect July 1, 1925, provided it is approved in the meantime by the Postmaster General of the United States and the Cuban Senate.

RANGE OF PURCHASES

As Cuba exports practically everything that it produces and imports nearly everything it consumes, its purchases are necessarily varied and extensive. For this reason goods move into Cuba in a steady stream, although varying at different times in volume. The economic position of the people is reflected in the amount of foreign purchases. Naturally, when economic conditions are unfavorable the volume moving is less, as purchases are restricted by the amount of money available for personal

expenditures. On the other hand, when money is plentiful a greater volume of goods is consumed and a larger number of luxury articles are imported.

The Cuban market absorbs much the same products and in about the same relative quantities as our home market, excepting in those items affected by climatic and local conditions. For instance, the country presents little opportunity for the sale of heating equipment and only a small market for lawn mowers. It should be noted, however, that the Cuban is unlike the American in many instances in tastes and temperament and inclines more to European styles and tastes than to American. This is notably true in jewelry and cosmetics.

The market is much like the home market for the American doing business there, and the factors which make for expansion or contraction of the home market also operate in the case of Cuba. The field is fairly well covered in practically all lines and competition is keen, so that anyone entering the field can expect to encounter established competition. The market has been played up and the desires of the people stimulated by advertising and concentrated sales efforts, but there are many lines for which a demand can be cultivated and existing demands extended by intensive exploitation.

The year 1920, an abnormally prosperous one for Cuba, brought about by the high price of sugar, which sold at above 23 cents a pound, saw Cuba purchase in the world's markets goods to the value of \$558,364,965. With the slump which came at the end of 1920 the Cuban market felt the effects of the depression and a tremendous amount of goods were piled up on the island. Purchases were restricted in 1921 and 1922 until the working off of accumulated stocks could be accomplished and the market once more restored to a normal basis. The past two years have witnessed the absorption of the last of these accumulated stocks and a resumption of purchases abroad. As a result these two years have recorded favorable increases in Cuban imports.

With the market once more restored to its normal equilibrium, commodity movements are again on a stable basis. Increases were made in practically all lines in 1923 and, if our shipments to Cuba can be taken as a criterion of the year 1924, receipts in Cuba in that year materially bettered 1923 figures. The movement during 1925 is expected to be fairly well distributed over all lines, although at the opening of the year certain lines, and particularly textiles, have been hampered by overstocks.

The Cuban market is a highly competitive one, and American companies have well-established connections and compete not only with foreign houses but also among themselves. Many of the large American companies have well-organized selling and distributing forces in Cuba. For instance, the large packing concerns warehouse stock and distribute in case and larger lots throughout the island. Others are well represented by Cuban connections of long standing.

There is an increasing tendency on the part of large companies to maintain purchasing agents in this country and handle goods direct, which has resulted in some instances in a scaling down of the business of the large importing houses, located principally in Habana. Many of the larger sugar companies also maintain commissaries throughout the island and import considerable goods direct which are retailed in competition with the goods of local concerns.

The variety of Cuban purchases can probably best be illustrated by the following table of imports by classes. The available space does not permit the inclusion of the tables in detail. Such figures are available in the bureau up to and including the year 1923 and can be furnished upon request.

IMPORTS INTO CUBA BY CLASSES OF COMMODITIES
(In Thousands of Dollars)

CLASSES	1913 ¹	1921	1922	1923
Earths, stones and manufactures of:				
Stones and earths.....	1,617	2,909	1,615	2,009
Mineral oils, bituminous, etc.....	1,347	10,393	6,865	7,578
Glass and crystal ware.....	1,797	4,769	2,012	4,088
Earthenware and porcelain.....	939	3,192	1,400	2,002

CLASSES	1913 ¹	1921	1922	1923
Metals and manufactures of:				
Gold, silver, etc.....	238	588	167	350
Iron and steel.....	6,814	26,323	6,754	17,261
Copper and alloys.....	1,102	2,624	707	2,119
All other metals.....	377	735	260	589
Chemicals, drugs, paints, and perfumeries:				
Primary products.....	623	853	536	786
Paints, varnishes, inks, etc.....	874	2,287	1,227	2,332
Chemical products.....	4,247	9,452	4,377	8,699
Oils, soap, etc.....	2,344	4,955	4,480	5,967
Fibers and manufactures of:				
Cotton.....	12,647	30,375	14,338	29,012
Other vegetable fibers.....	4,739	8,568	7,603	8,725
Wool, hair, etc.....	1,220	2,624	397	2,663
Silk.....	524	1,101	391	705
Paper, and manufactures of:				
Paper and cardboard.....	1,765	6,133	2,821	4,351
Books and prints.....	450	872	604	401
Wood and other vegetable substances:				
Wood, and manufactures of.....	3,675	7,033	2,940	5,418
All other.....	289	688	335	841
Animals and animal products:				
Animals.....	416	3,517	1,002	1,245
Hides and skins.....	704	1,269	1,372	2,120
Manufactures of leather.....	5,806	10,546	4,631	9,821
Instruments, machinery, and apparatus:				
Musical instruments.....	321	693	263	575
Machinery.....	11,436	47,728	12,742	20,577
Apparatus.....	3,579	21,477	6,626	9,724
Foods and drinks:				
Meats.....	12,630	28,222	20,929	23,726
Fish.....	1,834	4,438	2,693	3,519
Breadstuffs.....	16,441	33,395	24,601	27,591
Fruits.....	768	3,470	1,255	2,058
Vegetables.....	5,512	17,030	11,508	14,031
Beverages and oils.....	3,459	7,484	5,125	7,086
Dairy products.....	2,908	8,601	5,558	6,719
All other.....	5,765	12,351	6,575	10,426
Miscellaneous.....	3,586	15,216	8,611	10,027
Articles free of duty.....	13,009	15,112	7,437	13,710
Total.....	135,802	357,023	180,757	268,951

¹ Fiscal year ended June 30.

The position held by food products in Cuba's import trade can readily be seen from the above table. Although Cuba is undoubtedly capable of producing a large proportion of her food requirements, it has been economically more desirable to import them. The cultivation of her one major crop is of such long standing and it is so much easier to devote her efforts to that, importing her ordinary requirements from a near neighbor who has specialized in quantity production and distribution of such products, that she will probably continue to purchase such commodities abroad. Efforts have been made to demonstrate the desirability of diversification, but while conditions remain as they are there is little likelihood that much effort will be diverted from the easiest and most profitable source. For a detailed discussion of the foodstuffs market in Cuba refer to the recently published pamphlet of the bureau under that title (Trade Information Bulletin No. 325).

SPECIALTY MARKETS

The next largest group after food products is fiber manufactures, and in this line Cuba represents a well-developed and highly competitive market. The textile business during the past year was not as favorable as anticipated at the beginning. During most of the year business was running behind that of 1923, and some houses maintained sales only by forcing the market by price reductions. Later the political

and labor disturbances caused a slackening of the demand and a halting of deliveries to interior points. The railroad strike in June was followed directly by a period of marked activity which did not extend over as long a period as was hoped, and the year on the whole was somewhat disappointing. Our shipments of textiles to Cuba were less in 1924 than in the preceding year.

Machinery and apparatus come third, representing in a large measure sugar-mill equipment and supplies. Much of the machinery business is placed direct with firms in this country or through their branches or subsidiaries on the ground. The business in agricultural implements and machinery is centered in the hands of local houses of long standing. They are familiar with credit risks and the standing of practically all buyers and often finance the planters over a period of financial stringency. The importation of iron and steel materials, which are next in importance, has been greatly stimulated by the large amount of construction work being carried forward. This activity is of such long standing that stocks have been built up and the movement has been fairly regular for construction materials, the disturbances having little effect on the trade.

Manufactures of leather make up a large item, consisting largely of boots and shoes and the materials for the manufacture thereof. There is some manufacture of shoes, as well as saddles, bridles, harness, belts, etc., in Cuba, the United States supplying practically all the leather used with the exception of sole leather, which is produced locally. In 1923 we shipped to Cuba 4,120,442 pairs of shoes, valued at \$8,974,963, out of our total exportation of 7,341,997 pairs, valued at \$17,516,339.

The lack of good roads throughout the island has restricted somewhat the use of motor vehicles; nevertheless, this industry has enjoyed fairly good success in its trade development, as the market it dominated by American cars. During 1924 we sent 9,388 motor vehicles to this market. The need of adequate roads suitable for motor traffic is realized, and plans for the construction of a central highway with branch feeders are now under consideration. The adoption and completion of such a project will go a long way toward stimulating the sale of motor vehicles and undoubtedly give a wider distribution than is now attained. Such a program of road building has not yet been adopted, and if it is the work will extend over a considerable period. As sections are opened up this field will present added possibilities.

Cuba offers an excellent market for the sale of metal furniture, such as iron beds, hospital supplies, and office equipment. In wooden furniture the product of local manufacture is gradually replacing the imported article. The former now supplies about 75 per cent. of the demand and is favored by several factors, such as abundant supplies of the necessary woods, the immunity of these woods to the ravages of insects, and the presence of many skilled workmen capable of turning out a finished product. Wicker furniture enjoys a good sale, and the demand is supplied mostly from the United States. On account of the fact that few residences have lawns the demand for lawn furniture is not very great.

Although Cuba presents little to the seller of heating apparatus, it does present good prospects for the sale of gas stoves and water heaters. With the increasing number of apartment houses now being erected in the larger cities, the use of these articles is on the increase. The large amount of construction has had a favorable effect in stimulating sales of these articles.

The use of powders, rouges, perfumes, and creams is general with Cuban women, and the men also use large quantities of toilet preparations. There is some manufacture of soap in Cuba, but the percentage produced is small compared to the total consumption. There is some local production of toilet articles, such as cologne waters, face powders and extracts. Most of these articles, however, are imported, coming mainly from the United States and France. The latter supplies large quantities of perfumes and essences and shares with Spain the bulk of the trade in high-grade soaps. The United States supplies the major portion of the talcum powder and dental cream and considerable quantities of soaps and other articles.

Practically all the jewelry sold in Cuba is imported, and the market is supplied largely by the United States, Germany, and France. The last-named country supplies the high-class articles, while the other two compete for the middle and low-priced trade. The Cuban demand in this line is more toward European styles and for greater variety than is usually found in American lines. The question of price also is one of the determining factors in this trade. The styles which find the best sale in Cuba are not necessarily the lines which move best in this country. Too often the American exporter regards the Cuban market just as he does the home market, overlooking the fact that the tastes of the Cubans differ widely from ours in many instances. In some lines of jewelry the European product practically controls the market. Plated tableware is supplied largely from the United States, although wares of attractive appearance but of poorer quality are being offered by German firms.

A large amount of paper and paper products is used annually in Cuba, all of which, with the exception of the output of one Cuban mill, comes from abroad. She consumes large quantities of newsprint paper, tissue paper, book and catalogue paper, writing and wrapping paper, boxes, bags, cartons, and envelopes. The United States supplies the bulk of the paper, although considerable competition is offered from European sources. The total importation from all sources in 1923 was \$4,752,911, of which the United States share amounted to \$3,075,488.

The demand for electrical supplies and equipment has shown increases recently, stimulated by the large amount of construction work and the policy of consolidating electric plants in the eastern part of the island, which has resulted in improved service. The former has caused an increased demand for household electrical devices, ranges, fans, etc. The electrification of the sugar mills, which has been going on for some time in an effort to promote greater efficiency, is expected to continue, as there still remains much to be done in this line. The sale of electrical machinery and equipment is largely in the hands of American companies in Cuba or subsidiaries of such concerns. These companies are strongly established and are cognizant of all factors in connection with the market and know just how far they can safely go in the development of new business. The Cubans have taken up radio, and considerable interest has been manifested in this development. The result has been a fairly good demand for radio supplies, and this market will probably tend to increase.

The use of fertilizers increased during 1924 and sales were considered good. There is an increasing tendency to utilize commercial fertilizers and single elements thereof for sugar-cane growing. Tobacco growing also takes a considerable amount, and the vegetable and fruit crops come in for smaller quantities. While this business can be extended beyond its present proportions, such extension is limited by the amount of desirable land still available in eastern Cuba and not now in use. This is virgin soil and produces sugar cane with the minimum of effort and expense. The extensive use of fertilizers to bring the less fertile lands in the west way up on a par with this land would entail an expense which would tend to eliminate them or else turn them to other uses. Very little fertilizer is used on the cane lands in the eastern Provinces of Oriente and Camaguey. The market for the past year or two has been stimulated somewhat by the fact that during the two years following the depression very little fertilizer was used, and an effort is now being made to bring the lands back after the near exhaustion resulting from this neglect.

Many other articles find a ready sale in Cuba, among which might be mentioned optical goods, metal polish, patent medicines, dye-stuffs for home use, wearing apparel, lumber, oil, glassware and earthenware, toys, musical instruments, etc.

Cuban Coffee

According to information furnished by the Cuban Coffee Exchange the value of Cuban coffee for 1925 will approximate \$1,000,000. The gathering of the crop will start late in July and last until September.

New Cuba Co. Director

Oscar Cintas of the American Car & Foundry Company has been elected a director of the Cuba Company to fill a vacancy on the board.

The Sugar Industry

The Sugar Industry of Guatemala

CULTIVATION, PRODUCTION AND EXPORTATION

By Hector Lazo

Special Agent U. S. Department of Commerce

As a native industry, the cultivation of sugar-cane and the manufacture of cane sugar is second only to coffee in Guatemala. Not infrequently one finds both coffee and sugar-cane being raised on the same plantation. Counting these mixed estates, and those dedicated exclusively to the cultivation of sugar-cane, there are in Guatemala at the present time some 1,900 sugar estates, with a total acreage of 32,250 acres under actual cultivation.

The sugar industry in Guatemala is to a very large extent native, and, with a few exceptions, the estates do not compare in size with the sugar estates of Cuba and Hawaii. Nevertheless, there are several large sugar estates, the greatest of which is situated at Pantaleon, in the Department of Escuintla, on the Pacific littoral. In this department 9,304 acres are planted in cane, producing 27,000,000 lbs. of refined sugar out of a total of slightly over 36,000,000 in Guatemala. Sugar in Guatemala is to a very large extent a Pacific coast product. The methods of sugar cultivation in Guatemala are approximately the same as elsewhere. In sugar manufacture, however, a large proportion of the equipment is antiquated, although the results obtained are satisfactory. Guatemala is producing all the refined sugar consumed in the country and exporting large amounts annually. At the same time, less than half the sugar produced is refined, as the production and consumption of "panela" amounts to considerably more than that of refined sugar.

There are in Guatemala today eighteen complete sugar mills (including refineries) and 1,222 mills for the manufacture of "panela." Eight of the sugar refining mills are in the department of Escuintla, and 46 of the panela mills. In the department of Jutiapa, bordering on the Republic of Salvador, there are 139 panela mills, producing approximately 5% of the total panela pro-

duction, while the department of Suchitepequez, on the Pacific littoral toward the Mexican boundary, with 25 panela mills, produces fully 17% of the total panela production of the country.

The cultivation of the cane itself is undertaken according to the methods adopted in other sugar-cane producing countries and needs no detailed description. The cane is cut and hauled to the mills, usually in ox carts, although the largest mills have a system of narrow gauge railroads. Almost all the large sugar mills have modern equipment.

Methods of refined sugar production are, to a large extent, similar to those of other sugar producing countries. These vary slightly according to the size of the establishment and the equipment of the plant, but in the main they are not materially different from the standard methods in vogue elsewhere. The production is limited to a certain extent, but can be materially increased if prices warrant it, as a comparatively large number of mills have facilities for a moderate refined production. In case of great demand for refined sugar, or of a decided slump in the price of panela, planters also sell their cane to the large sugar mill owners instead of producing panela. Completely refined sugar is not used to as large an extent in Guatemala as the so-called "moscavado" or semi-refined sugar. This sells at somewhat less than the high quality refined sugar and is preferred almost everywhere for common everyday use. The same amount of cane required to make one carga or load of panela produces approximately 200 pounds of moscavado sugar, thus making the yield approximately six per cent. This low yield is due partly to a low sucrose content of sugar-cane and partly to antiquated methods of manufacture.

Panela Manufacturing Process.—The

most important branch of the sugar industry in Guatemala is therefore the manufacture of panela, cakes of unrefined sugar, which, besides being preferred to refined sugar by the working classes, finds a very steady and profitable market in the manufacture of rum.

The equipment for the manufacture of panela is, as a general rule, very simple, and for the most part antiquated. The product itself, however, is of such a nature as to make the use of complicated and expensive machinery unnecessary.

The cane is ground by the usual three cylinder grinders. The bagasse is used as fuel, while the juice is led into the first of a number of vats. These vats, made of either steel or hardwood, are placed in a series of five, six or seven vats, single or double. The juice in these vats is heated by direct contact with submerged steam pipes, augmented by direct heat underneath the vats. The series is usually constructed in such a way that the natural force of gravity will be sufficient to cause the boiling liquid to flow from vat No. 1 to vat No. 2, where it is further boiled and concentrated, and so on successively until the last vat is reached. Pumps are also used for this transfer in case of necessity. The last two vats usually have the most heat from direct fire, so that the greatest concentration and evaporation takes place there.

When a specific density is attained in the last vat, the concentrated juice is "skimmed" for a certain amount of impurities that gather on top, and then dropped into a large steel shovel-like container, connected by a chain to a lever arm. The rear end of the container is lifted by means of this lever, and the thick liquid flows into a short canal, conveying it into a cooler ("batidor").

The "batidor" is simply a wooden vat in which a set of four or five paddles, fastened together in a cylindrical shape, is made to revolve at a high rate of speed. The motive power is usually supplied by two laborers, one at each end, turning a hand crank. This "beating" of the syrup mixes the cool air with it, causing it to assume a more solid state, until a certain

consistency is attained, designated as "de punto"; the wooden cylinder is then lifted out, scraped and the hardening mass poured into wooden cup-shaped forms of varying sizes. The aguacate or "alligator pear" tree, because of its hardness and smoothness, affords an excellent material for the manufacture of these moulds. The pouring is done by hand. Solidification takes place quickly after the syrup is poured into these moulds, and when hard these "tapas" or cup-shaped, hard lumps, are taken out of the mould and wrapped in sets of four to a "mancuerna," a couple or link. The wrapping is done by hand, dried cane leaves being used as wrappers. Great skill and proficiency is attained by the natives in wrapping the panela. A fast worker is able to wrap from 150 to 180 mancuernas, representing a total of some 1,750 or 2,000 pounds of panela, in one day. Four tapas, representing one mancuerna, usually weigh from 10 to 11 pounds, one carga (load), the usual commercial unit of panela, having 32 of these mancuernas and therefore weighing approximately 350 pounds.

It is estimated that from 2,500 to 4,000 pounds of sugar cane are necessary to produce one "carga" of panela, or 350 pounds. The yield is accordingly approximately 10 per cent.

Molasses Production.—Molasses is not used to any great extent in Guatemala today. At one time considerable quantities were used for rum, and experiments were made in the use of cane molasses as a fertilizer. However, the results were unsatisfactory, and, where molasses is obtained in the manufacture of sugar, it is to a large extent being wasted. An active movement is now on foot to establish a motor fuel alcohol plant, using the molasses production. Great interest is being displayed by planters but the project is still in its infancy.

The sugar industry in Guatemala cannot expand greatly until a steady market is found for the product. The preference of the American tariff for Cuban sugar sets up a restrictive power limiting expansion.—*Sugar.*

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last review was dated June 22, 1925. Further developments since that time have made it a certainty that the Cuba crop will exceed 5,100,000 tons as a final outturn, and the Java crop, also, has made a slight increase in the expected outturn, the figure now being 2,100,000 tons. The above conditions, which were affecting the market during the time of our previous report, have also influenced the market during this review. While Cuban holders, as a rule, have not been inclined to offer sugar freely, but have maintained a quite firm attitude, there have been sufficient Porto Ricos and Philippine Sugars pressed on the market to cause a declining tendency. It seems that these latter holders are quite willing to sell and one Porto Rico holder expressed the opinion that it was only the question of shipping facilities from Porto Rico to the United States that influenced the amount of offerings of Porto Rico sugars, and if there were more steamers available than there are at present, the offerings would be much larger.

Under such conditions, the market could not act favorably and a slow decline was established during the period under review, until some transactions were made on July 9th, when 2-15/32c c. & f. was paid for Cubas and its parity for duty free sugars. At this figure, however, resistance was shown on the part of all holders of sugar and a slight improvement has taken place, the market now being steadily maintained at 2 1/2c c. & f.

As the market declined, the United Kingdom and Continental refiners became more interested in Cuban sugars and purchased these on a scale downward, their lowest purchase being at 11s 9d c. i. f. U. K. or Continental ports, and, at this writing, due to the improvement in the C. & F. New York market, and they are showing further interest at 11s 9d c. i. f. European ports, but with no sellers.

The European Beet crops are reported as being in quite good condition, as the weather during the period under review has been favorable. Sowings of all Europe are now estimated at 2,071,873 hectares, compared with last year's plantings of 2,061,618 hectares.

It is interesting to note the increase in the United Kingdom Beet crop, this industry being subsidized in the shape of a practical bounty and it is now thought that the outturn of White refined sugars in the U. K. will reach 65,000 tons compared with last year's figure of 23,730 tons.

UNITED STATES BEET CROP.—*Preliminary Estimate for 1925-26:*

In conformity with early indications the outlook for the Domestic Beet Sugar Crop of 1925-26 is for a crop materially smaller than that of the 1924-25 campaign; in fact, the outlook at the present time is for a reduction of at least 150,000 tons of sugar and we accordingly place our estimate, subject to later revision, at 825,000 tons, as compared with an outturn in 1924-25 of 974,185 tons, of 2,240 lbs. each.

This considerable reduction can be largely attributed to weather conditions which have existed during the growing season, which will cause a considerably larger abandonment of acreage than usual on account of the poor stands due to early frosts, drought and consequent lack of irrigation water, etc.

The following table gives the details of acreage planted this season compared with that actually harvested in the previous campaign:

States	1925-26 Acreage Planted	1924-25	
		Acreage Harvested	Sugar Produced Tons 2,240 lbs.
Ohio.....	49,460	40,725	40,170
Nebraska.....	60,889	64,961	93,385
Michigan.....	141,478	153,073	147,701
Colorado.....	187,050	225,888	324,601
Utah.....	71,194	80,952	68,242
Idaho.....	38,383	39,328	34,362

States	1925-26 Acreage Planted	1924-25	
		Acreage Harvested	Sugar Produced Tons 2,240 lbs.
California.....	98,912	82,557	117,534
Others.....	144,098	134,540	148,190
	791,464	822,024	974,185

We have compiled a very interesting table showing the consumption of the United States for six month periods for ten years, and we think that many of your readers will be quite interested in this calculation, which we give below.

U. S. SUGAR CONSUMPTION.—We published last week a detailed calculation of the indicated United States sugar consumption for the first six months of 1925, 1924 and 1923. In our remarks, we mentioned that it is rarely that the consumption of the second six months shows up as well as the first half of the year, and we give below a table showing the U. S. Sugar consumption for the first half of the year, second half of the year and the entire year for a period of ten years. It is quite interesting to study these figures and, in every instance in the table given, it will be seen that the consumption of the second half of the year is less than that of the first half. The figures vary quite considerably, occasionally being quite close, as far as the two halves of the years are concerned. There are other years, however, in which the difference is quite far apart.

For the ten years given, it appears that the decrease in the consumption of the second half of the year is about 16%, on the average, less than the consumption of the first half of the year. If we use this average figure, it will indicate that the consumption for the second half of 1925 will be approximately 2,500,000 tons, making a total consumption for the year of 5,500,000 tons of sugar, based on refined value. Of course, many contingencies can happen to change the sugar situation during the last half of the year and the above is only given as a possible indication of what the sugar consumption in the United States will be in the second half of 1925.

UNITED STATES SUGAR CONSUMPTION—REFINED VALUE

Year	1st 6 months Tons	2d 6 months Tons	Total Tons
1925.....	3,009,256	—	—
1924.....	2,680,950	2,173,529	4,854,479
1923.....	2,593,691	2,186,993	4,780,684
1922.....	2,671,953	2,420,805	5,092,758
1921.....	2,113,803	1,993,525	4,107,328
1920.....	2,207,428	1,877,244	4,084,672
1919.....	2,120,609	1,947,062	4,067,671
1918.....	1,915,947	1,579,659	3,495,606
1917.....	2,235,826	1,447,773	3,683,599
1916.....	1,987,261	1,671,346	3,658,607
1915.....	2,076,819	1,724,712	3,801,531

INDICATED UNITED STATES SUGAR CONSUMPTION FOR FIRST SIX MONTHS.—As usual at this time, we present herewith our compilation of the indicated consumption of sugar in the United States during the first half of 1925, compared with the first half of the years 1924 and 1923. In presenting these calculations to our readers, we must again make mention that this indicated consumption must be accepted with the usual stipulation, which is, that it is very seldom that the consumption of the last half of the year is equal to that of the first half. There is another point to which we desire to call attention and that is, the tendency of the refiners during 1925 to increase the carrying of sugar at consignment points, and not only at the old established consignment markets, such as the larger cities, but there has been quite an important increase in the number of other locations to which refiners now regularly consign refined sugar.

This increase in the carrying of refined stocks by refiners throughout the country at additional consignment points tends to explain in part the very large increase in the indicated consumption as shown by the table below.

INDICATED U. S. SUGAR CONSUMPTION FIRST SIX MONTHS
REFINED VALUE

	1925 Tons	1924 Tons	1923 Tons
All U. S. Refining ports, Meltings and Deliveries, refined value Louisiana crop and Domestic Beet consumed, less accounted for in above figure.....	2,611,489	2,319,675	2,355,417
	532,767	459,497	417,974
Total.....	3,144,256	2,779,172	2,773,391
Less Exports from all U. S. ports.....	*135,000	†98,222	†179,700
INDICATED CONSUMPTION 6 MONTHS.....	3,009,256	†2,680,950	†2,593,691
Increase—Tons.....	328,306	87,259	
Increase—Per Cent.....	12.25	3.36	

*Estimated.

†Corrected figures for 1924 and 1923.

The figure of 3,009,256 tons as the indicated consumption for the first six months of 1925 is the largest figure shown for this period of time in our records and a remarkable part of the attaining of such a large figure is the quiet and orderly manner in which this quantity was distributed. There have been no very heavy buying periods, such as frequently obtained during former years, and which large movements were followed by periods of quietness, buyers of refined in the meantime taking sugars that they previously purchased on contract. Instead of this policy, practically all of this year buyers of refined sugar were satisfied to allow refiners to carry the stocks and, as refiners were inclined to keep melting freely, in many cases up to full capacity, there was always an ample supply of refined sugar for the buyers to get without any unnecessary delays. This method of buying sugars on the part of refined sugar buyers explains the quiet handling of such an enormous quantity of sugar of over three million tons in six months throughout the entire United States.

In making up this figure of 3,009,256 tons, all branches of the Trade show a material increase compared with last year, Cane refiners showing an increased melting, based on refined value, of 291,814 tons, part accounted for by an increased export refined business of 36,778 tons. Distribution of Beet and Louisiana sugars also shows an increase, while the total indicated consumption figure of 3,009,256 tons for the first half of 1925 is 328,306 tons larger than the first six months of last year, or an increase of 12.25%.

If the indicated consumption for the second six months of 1925 keeps close to the record breaking figure of the first six months, which, however, is hardly according to precedent, but not impossible, the apparent excess in raw sugar supplies will be quite well used up, which, of course, would tend to improve the sugar situation generally, not only as far as the refined interests are concerned, but for the sugar producers as well, both Cane and Beet.

REFINED.—Buyers of refined sugar have continued the policy of buying only hand-to-mouth, as refiners have adopted the system of having large consignments throughout the country in very many locations. Under such circumstances, when a refined buyer runs out of supplies, all he has to do is to go to the warehouse of the refiner carrying the consignment and obtain the sugar he needs. In this way, the wholesale grocer has avoided carrying any excessive supplies, particularly as the market has shown a declining tendency during the entire period under review.

The distribution of sugar, as shown in our table given above, is the largest ever known for a first six months of a year, but owing to the present method of doing business from consignments, as outlined, this distribution goes on very quietly and hence, it appears as if the refined sugar business was not as good as formerly. Some years ago, when the market was firm the refined Trade would buy very heavily, purchasing enormous quantities of refined sugar on contract, against which

they would withdraw sugars as occasion required. Such a demand for refined sugar naturally had a good effect on the raw situation and for a period of a week or so there was quite a strong raw and refined market. As the business is conducted now, the refiners, when they dispose of sugars through consignments, as well as for shipment from refining points, replace raws as the refined is sold to the Trade, and this can be done without materially disturbing the sugar situation.

Refined sugars during the period under review have declined to 5.35c, less 2%, and this price continues to be the prevailing quotation.

New York, N. Y., July 21, 1925.

Sugar Production Cost in Cuba

In a bulletin issued on June 2, the Czarnikow-Rionda Company makes the following statement as to average production cost:

The average cost of producing sugar in Cuba is much above $2\frac{1}{2}$ cents a pound f.o.b. Cuba. The lowest price at which the most favored Cuban plantations can place a pound of 96 degree centrifugal sugar f.o.b. steamer is $2\frac{1}{2}$ cents; others, not so well situated or having higher cost of cane must have $2\frac{3}{4}$ cents to pay the initial cost, and still others, among the smaller plants, need 3 cents f.o.b. to come out even.

In every case these costs exclude fixed charges such as interest on bonds, depreciation, and taxes, which contribute toward the cost of the article and are impossible to calculate.

Whenever granulated sugar is selling at 5.60 cents a pound or below, the consumer is having the sugar at a price that leaves no profit to the farmer, the sugar planter or the refiner. At the present time raw sugar is quoted at about $2\frac{1}{2}$ cents a pound f.o.b. Cuba, or $2\frac{5}{8}$ cents c. and f. New York, while refiners are selling granulated here at 5.55 to 5.70 cents a pound.

Czarnikow-Rionda figure the production costs and other price factors as follows:

"The main items that go to produce sugar are: (1) cost of cane, (2) cost of manufacturing, in which are included railroad freights, the empty bag, and shipping expenses.

"With regard to the cost of cane, it is reasonable to estimate it per lb. at between 1.50 and 1.75c. The percentage in sugar given by the planter to the colono in exchange for the cane, as well as the yield of sugar per ton of cane, are the principal factors that govern the cost of cane. The figures taken here are the lowest

possible and are not very remunerative to the farmer.

"In the manufacturing, railroading, and other items, there also is great disparity, depending on the size of the mills, distance from the seacoast and cost of shipping. For our purpose we will calculate the lowest cost of manufacturing at from 1.00 to 1.25c, making an approximate cost f.o.b. of 2.50c to 3.00c.

"From the above figures it is easily seen that the average cost of producing sugar in Cuba must be much above $2\frac{1}{2}$ c f.o.b. This explains the great resistance on the part of producers to accept lower prices, and the consequent quick reaction immediately the market touches $2\frac{1}{2}$ c.

"To the f.o.b. cost price in Cuba, the lowest of which for our present purpose we will consider on an average 2.75c f.o.b., there is to be added marine freight 0.15c. Foreign duty on entering U. S. 2.20c per lb., which it may not be amiss to say in passing is equal to 80 per cent of the Cuban f.o.b. cost, a rather high duty on a food commodity, that goes into every household; Cuba's sugar, however, having a preferential of 20 per cent, pays 1.76c.

"This makes the duty paid price 4.66c.

"When American granulated is sold at 5.60c there is hardly one cent left to cover the refining of the raw article, which is again too little for the refiner."

Link-Belt Issues Folder Descriptive of New Grain Car Unloader

A new folder describing the operation and construction of the new Link-Belt Grain Car Unloader has just been issued by Link-Belt Company. Copies of this Folder No. 794 will be mailed upon request to Link-Belt Company, Chicago, Indianapolis or Philadelphia.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 22 de junio de 1925. Mayores acontecimientos desde entonces han hecho sea una certeza que la zafra de Cuba pasará de 5,100,000 toneladas como rendimiento final, y también la zafra de Java ha tenido un ligero aumento en la producción esperada, siendo ahora la cifra 2,100,000 toneladas. El estado antedicho, que afectaba el mercado durante el tiempo de nuestra reseña anterior, ha influenciado también el mercado durante esta revista. Mientras que los tenedores de azúcar de Cuba, como regla general, no han estado inclinados a ofrecer azúcar libremente, sino que han mantenido una actitud bastante firme, ha llegado al mercado suficiente cantidad de azúcar de Puerto Rico y las Filipinas para causar una tendencia a la baja. Parece que estos últimos tenedores de azúcar están dispuestos a vender, y uno de Puerto Rico dijo que según su opinión era solamente la cuestión de facilidades para el embarque de Puerto Rico a los Estados Unidos lo que influenciaba la cantidad de ofertas de azúcar de Puerto Rico, y que si hubiera más vapores disponibles de los que hay al presente, las ofertas serían mayores.

Bajo tales condiciones, el mercado no podía ser favorable y se estableció una baja poco a poco durante el período bajo reseña, hasta que se hicieron algunas transacciones el 9 de julio, cuando se pagó 2-15/32c. costo y flete por el azúcar de Cuba y su equivalente por azúcar libre de derechos. Sin embargo, a este precio hubo resistencia por parte de todos los tenedores de azúcar y tuvo lugar una ligera mejoría, manteniéndose ahora estable el mercado a 2½c. costo y flete.

A medida que bajaban los precios del mercado, los refinadores de la Gran Bretaña y del Continente europeo se interesaron más en los azúcares de Cuba y compraron hacia la baja, su compra más baja siendo a 11s 9d costo, seguro y flete la Gran Bretaña o puertos del Continente, y al escribir esta reseña, debido a la mejoría en el costo y flete en el mercado de Nueva York, están mostrando mayor interés a 11s 9d costo, seguro y flete en puertos europeos, pero no hay vendedores.

Se informa que las cosechas de remolacha europea están en condición bastante buena, pues el tiempo durante el período bajo reseña ha sido favorable. Las siembras en toda la Europa se calculan ahora en 2,071,873 hectáreas, comparado con las plantaciones del año pasado de 2,061,618 hectáreas.

Es interesante mencionar el aumento en la cosecha de remolacha de la Gran Bretaña, esta industria siendo subvencionada en la forma de una práctica concesión, y se cree ahora que la producción de azúcar blanco refinado de la Gran Bretaña llegará a 65,000 toneladas, comparado con la cifra de 23,730 toneladas del año pasado.

COSECHA DE REMOLACHA DE LOS ESTADOS UNIDOS.—*Cálculo preliminar para 1925-26:*

De conformidad con indicaciones primitivas, la perspectiva para la cosecha de azúcar de remolacha del país en 1925-26 es de una cosecha materialmente más pequeña que la de 1924-25; en efecto, la perspectiva al presente es de una reducción de por lo menos 150,000 toneladas de azúcar, y por lo tanto damos nuestro cálculo, sujeto a una revisión más tarde, en 825,000 toneladas, comparado con una producción en 1924-25 de 974,185 toneladas, de 2,240 libras cada una.

Esta reducción considerable puede atribuirse en gran manera a las condiciones del tiempo que ha habido durante la estación del crecimiento, lo cual causará se abandone una superficie considerablemente más grande de siembra de lo acostumbrado a causa de las plantas tan mezquinas debido a escarchas tempraneras, sequía y la correspondiente falta de agua para la irrigación, etc.

La siguiente tabla da detalles de la superficie de terreno sembrado esta estación comparado con lo cosechado verdaderamente en la estación anterior.

Estados	1925-26	1924-25	
	Terreno plantado	Terreno cosechado	Azúcar producido Ton 2,240 lbs.
Ohio.....	49,460	40,725	40,170
Nebraska.....	60,889	64,961	93,385

Estados	1925-26	1924-25	
	Terreno plantado	Terreno cosechado	Azúcar producido Tons 2,240 lbs.
Michigan.....	141,478	153,073	147,701
Colorado.....	187,050	225,888	324,601
Utah.....	71,194	80,952	68,242
Idaho.....	38,383	39,328	34,362
California.....	98,912	82,557	117,534
Otros.....	144,098	134,540	148,190
	791,464	822,024	974,185

Hemos compilado una tabla muy interesante que muestra el consumo en los Estados Unidos en períodos de seis meses durante diez años, y creemos que muchos de nuestros lectores estarán bastante interesados en estos cálculos, los cuales damos a continuación.

CONSUMO DE AZUCAR EN LOS ESTADOS UNIDOS.—La semana pasada publicamos un cálculo detallado del consumo indicado de azúcar en los Estados Unidos durante los primeros seis meses de 1925, 1924 y 1923. En nuestras observaciones mencionamos el hecho de que rara vez el consumo en los segundos seis meses es tanto como en la primera mitad del año, y damos más adelante una tabla mostrando el consumo de azúcar en los EE. UU. durante la primera mitad del año, la segunda mitad del año, la segunda mitad del año y durante el año entero por un período de diez años. Es muy interesante fijarse en estas cifras, y en todo caso en la tabla dada, se verá que el consumo en la segunda mitad del año es menor que el de la primera mitad. Las cifras varían considerablemente, de vez en cuando siendo casi iguales, en lo que se refiere a las dos mitades de los años. Sin embargo, hay otros años en los cuales la diferencia es bastante grande.

Durante los diez años dados, se verá que la disminución en el consumo en la segunda mitad del año es aproximadamente el 16 por ciento, por término medio, menor que el consumo en la primera mitad del año. Si hacemos uso de esta cifra por término medio, indicará que el consumo en la segunda mitad de 1925 será aproximadamente 2,500,000 toneladas, haciendo un consumo total durante el año de 5,500,000 toneladas de azúcar, basado en el valor del refinado. Por supuesto, pueden suceder muchas contingencias que cambien la situación del azúcar durante la última mitad del año, y lo antedicho se da solamente como indicación posible de lo que será el consumo de azúcar en los Estados Unidos en la segunda mitad del año 1925.

CONSUMO DE AZÚCAR EN LOS ESTADOS UNIDOS—AZÚCAR REFINADO

Año	Primeros 6 meses	Ultimos 6 meses	Total
	Toneladas	Toneladas	Toneladas
1925.....	3,009,256	.....	.....
1924.....	2,680,950	2,173,529	4,854,479
1923.....	2,593,691	2,186,993	4,780,684
1922.....	2,671,953	2,420,805	5,092,758
1921.....	2,113,803	1,993,525	4,107,328
1920.....	2,207,428	1,877,244	4,084,672
1919.....	2,120,609	1,947,062	4,067,671
1918.....	1,915,947	1,579,659	3,495,606
1917.....	2,235,826	1,447,773	3,683,599
1916.....	1,987,261	1,671,346	3,658,607
1915.....	2,076,819	1,724,712	3,801,531

CONSUMO INDICADO DE AZUCAR EN LOS ESTADOS UNIDOS DURANTE LOS PRIMEROS SEIS MESES.—Como de costumbre en esta época, damos aquí muestra compilación del consumo indicado de azúcar en los Estados Unidos durante la primera mitad de 1925, comparado con la primera mitad de los años 1924 y 1923. Al presentar estos cálculos a nuestros lectores, debemos otra vez mencionar que este consumo indicado debe ser aceptado con la acostumbrada estipulación, es decir, que muy rara vez el consumo de la última mitad del año es igual a la de la primera mitad. Hay otro punto al cual queremos llamar la atención, y es la tendencia de los refinadores durante 1925 en aumentar las existencias de azúcar en los puntos de consignación, y no solamente en los antiguos mercados de consignación, tales como en las ciudades más grandes, sino que ha habido un aumento bastante importante

en el número de otras localidades a las cuales los refinadores consignan ahora azúcar regularmente.

Este aumento en llevar existencias de azúcar refinado por los refinadores por todo el país en puntos adicionales de consignación explica en parte el grande aumento en el consumo indicado como se muestra en la siguiente tabla.

CONSUMO INDICADO DE AZÚCAR EN LOS EE. UU., PRIMEROS SEIS MESES
AZÚCAR REFINADO

	1925 Tons	1924 Tons	1923 Tons
Todos los puertos refinadores de los EE. UU., Elaboración y Entregas, Azúcar refinado.....	2,611,489	2,319,675	2,355,417
Consumo de la zafra de la Luisiana y de Remolacha del país, menos lo que se cuenta en las cifras anteriores.....	532,767	459,497	417,974
TOTAL.....	3,144,256	2,779,172	2,773,391
Menos exportaciones de todos los puertos de los EE. UU....	*135,000	†98,222	†179,700
Consumo indicado primeros 6 meses.....	3,009,256	†2,680,950	†2,593,691
Aumento—Toneladas.....	328,306	87,259	
Aumento—Por ciento.....	12.25%	3.36%	

*Calculado.

†Cifras corregidas por 1924 y 1923.

La cifra de 3,009,256 toneladas como consumo indicado por los primeros seis meses de 1925 es la cifra más alta mostrada por este período de tiempo en nuestros archivos, y una parte notable en obtener cifra tan alta es la manera tan quieta y ordenada con que se distribuyó esta cantidad. No ha habido períodos de compras muy grandes, como las que se efectuaban durante años anteriores, y cuyas grandes transacciones iban seguidas de períodos de calma, los compradores de azúcar refinado en el entretanto tomando azúcares que previamente compraron por contrata. En vez de este sistema, prácticamente todo este año los compradores de azúcar refinado han estado satisfechos en dejar que los refinadores tuvieran las existencias, y como los refinadores estaban inclinados en continuar su elaboración en abundancia, en muchos casos en toda su capacidad, había siempre abundantes existencias de azúcar refinado para los compradores sin demoras innecesarias. Este sistema de comprar azúcar de parte de los compradores de azúcar refinado explica el ordenado manejo de cantidad tan enorme de azúcar de más de tres millones de toneladas en seis meses por todos los Estados Unidos.

Al dar esta cifra de 3,009,000 toneladas, todos los ramos del comercio muestran un aumento material comparado con el año pasado, los refinadores de azúcar de caña mostrando un aumento en sus elaboraciones, basado en azúcar refinado, de 291,814 toneladas, parte de esto debido a un aumento en la exportación de 36,778 toneladas de azúcar refinado. La distribución de azúcar de caña y de remolacha también muestra un aumento, mientras que el total indicado del consumo de 3,009,000 toneladas por la primera mitad del año 1925 es 328,306 toneladas más que los primeros seis meses del año pasado, o sea un aumento de 12.25 por ciento.

Si el consumo indicado por los últimos seis meses de 1925 se aproxima a la cifra extraordinaria de los primeros seis meses, lo cual, sin embargo, es casi difícil según precedente, pero no imposible, el exceso aparente en existencias de azúcar crudo se extinguirá bastante, lo cual, por supuesto, tendería a mejorar la situación del azúcar generalmente, no sólo en lo que se refiere a los interesados en el azúcar refinado, sino asimismo para los productores de azúcar, tanto de caña como de remolacha.

Refinado.—Los compradores de azúcar refinado han continuado el sistema de comprar en cantidades muy cortas, pues los refinadores han adoptado el sistema de retener grandes consignaciones de azúcar por todo el país en muchas localidades. Bajo tales circunstancias, cuando un comprador de azúcar refinado se queda corto de existencias, todo lo que tiene que hacer es ir al almacén del refinador que tiene el azúcar en consignación y obtener el azúcar que necesita. De este modo, el almacenista de víveres ha evitado el

tener en manos existencias en exceso, especialmente cuando el mercado ha mostrado tendencia a la baja durante todo el período bajo reseña.

La distribución de azúcar, como se muestra en la tabla anterior, es la más grande que se ha conocido jamás durante los primeros seis meses de un año, pero debido al presente método de llevar a cabo los negocios por consignaciones, como se ha explicado, esta distribución se lleva a cabo muy silenciosamente, y por eso parece como si el negocio del azúcar refinado no fuera tan bueno como antes. Hace algunos años, cuando el mercado era firme, el comercio de azúcar refinado compraba en cantidades muy grandes, comprando enormes cantidades de azúcar refinado por contrata, contra lo cual tomaban azúcar según lo requiriera el caso. Tal demanda por azúcar refinado naturalmente tenía muy buen efecto en la situación del azúcar crudo y durante un período de una semana o cosa así había un mercado de azúcar crudo y refinado bastante fuerte. Como se llevan ahora a cabo los negocios, los refinadores, cuando dan salida al azúcar por medio de las consignaciones, así como para embarques de puntos refinadores, sustituyen azúcar crudo a medida que el refinado se vende al comercio, y esto puede hacerse sin perturbar la situación de azúcar.

El azúcar refinado durante el período bajo reseña ha bajado a 5.35c. menos 2%, y este precio continúa siendo la cotización prevaleciente.

Nueva York, julio 21 de 1925.

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Iron Mines at Daiquiri

THE CUBA REVIEW

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VOLUME XXIII

September, 1925

NUMBER 10

Cuban Government Matters

The Cuban Money Export Tax Analyzed

The one-fourth of one per cent tax on money exported from Cuba, according to advices from Commercial Attaché Carlton Jackson, Habana, to Commerce Reports has been the subject of more discussion than any other tax imposed under the provisions of the public-works law. The principle of the tax, as given in the text of the law, is accepted as equitable and well adapted to produce the revenue necessary to meet the expense of the gigantic road-building project and other contemplated internal improvements. Objection has been raised by Cuban business men, however, to the interpretation put upon the text of the law by the regulations issued to put the tax into effect. These regulations were issued by executive decree and are therefore subject to modification by a subsequent decree. The terse statement of the original law made it necessary to issue regulations in considerable detail and left a wide margin of interpretation to be expressed thereby. Merchant bodies in Habana contend that the present regulations carry the incidence of the tax beyond the intention of the law.

LANGUAGE OF THE LAW COMPREHENSIVE

Inasmuch as the language is comprehensive and unrestricted, the letter of the law probably suffices to support the interpretation put upon it by the regulations, but the

Cuban trade associations in petitioning for a modification of the rules have insisted that the spirit of the law has been misapplied and exceeded.

It is difficult to translate the law verbatim, but the following renders the sense with sufficient accuracy:

A tax of one-fourth of 1 per cent on all payments, assignments of funds, transfers of credits or securities or products; or other operations that directly or indirectly imply the exportation of money or its equivalent from the national territory to foreign countries.

From the message of the President accompanying the measure when it was first submitted to the Cuban Congress, it is evident that the intent was to tax dividends and earnings of foreign industrial, agricultural, and other enterprises in Cuba which are remitted abroad, as well as Cuban funds which are invested in foreign countries, and not to levy a tribute on ordinary trade transactions. The regulations, however, require the payment of the tax on all money sent out of the country for every purpose, even in payment for commodities purchased abroad.

INCIDENCE OF TAX NOT EQUAL

Products shipped from Cuba are taxed provisionally under the regulations, the tax payment being deposited subject to refund if proof that payment for the goods was received within 90 days is presented. The

object is to prevent the export of money in the form of domestic products to escape the tax; the fact that a refund is provided is recognition of the principle that ordinary international mercantile transactions are not within the purview of the tax. It seems inconsistent, therefore, that drafts in payment for foreign goods sold to Cubans should be subject to tax without refund or other recourse.

As the regulations now stand, the export of a cargo of sugar for which payment of \$5,000, representing the price of the sugar, is received within 90 days, does not constitute the export of money or wealth and is not permanently taxed, whereas the remittance of \$5,000 in payment of a cargo of rice or other commodity would be subject to an unrefundable tax of \$12.50.

New Taxes Take Effect

The new taxes created by the Public Works act went into effect July 21. They include the following:

Increase of the one per cent gross sales tax to one and one-half per cent.

One-fourth of one per cent tax on all money or its equivalent sent from Cuba to foreign countries.

One-tenth of a cent tax on every gallon of gasoline.

Two per cent rental, or production tax, on real estate property.

Tariff on luxury goods increased 10 per cent.

Tariff on merchandise not considered as commodities increased three per cent.

Now that the protection formerly afforded by the duty on gasoline entering Cuba has been replaced by a consumption tax, foreign gasoline companies are reported to be already investigating the question of entering the Cuban market.

Cuban National Vehicle Tax

A special commission appointed by President Machado for drawing up the regulations for the enforcement of the various tax measures included in the new Cuban public-works law now reports in the matter of taxes for (a) motor and (b) animal-drawn vehicles:

TAX ON MOTOR VEHICLES

Taxes levied on motor vehicles under this law are:

	Per annum
Private automobiles to 105 inches wheel base	\$40
From 105 to 120 inches wheel base.....	50
From 120 to 128 inches wheel base.....	60
From 128 to 135 inches wheel base.....	75
Beyond 135 inches wheel base.....	90

Cars for public service will be charged one-half the above rates.

Trucks to $\frac{3}{4}$ -ton capacity.....	25
From $\frac{3}{4}$ to $1\frac{1}{2}$ tons capacity.....	50
From $1\frac{1}{2}$ to $2\frac{1}{2}$ tons capacity.....	100
From $2\frac{1}{2}$ to $5\frac{1}{2}$ tons capacity.....	200
More than $5\frac{1}{2}$ tons capacity.....	400
Motor cycles of all kinds.....	10

Trucks of more than $7\frac{1}{2}$ tons capacity are not permitted on the national highways.

TAX ON ANIMAL-DRAWN VEHICLES

To animal-drawn vehicles the following rates apply:

	Per annum
For public roads, vehicles of two wheels, capacity to 1 ton.....	\$20
Vehicles, four wheels, same capacity.....	15
Vehicles, four wheels, capacity up to 2 tons	30
Vehicles, four wheels, capacity up to 4 tons	100
Pushcarts.....	5

Horse-drawn vehicles with a capacity of more than 4 tons will not be allowed on the public roads.

SPECIAL RATES FOR CARTS

A special tariff is made for oxcarts for operation on public roads, but not on national highways, as follows:

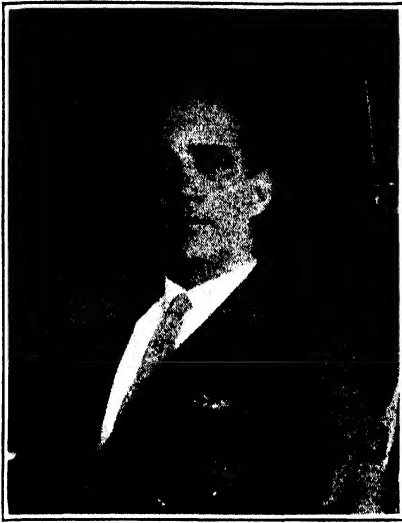
	Per annum
2-wheeled cart with rims exceeding 6 inches in width.....	\$12
4-wheeled cart, similar rims.....	10
2-wheeled cart, rims less than 6 inches in width.....	10

Carts other than oxcarts with rims more than 6 inches wide are taxed \$5 per annum, with similar provision forbidding operation on national highways.

Carts, wagons, and other vehicles operated solely on private property up to a capacity of 500 pounds are exempt from taxation.

The reason for taxing according to width of the rim is that most of the damage at present done to public roads is chargeable to a heavy-wheeled type of ox-drawn cane cart used locally.

All of the above taxes are to be collected once a year by the municipal authorities, who will remit one-half of the sum to the national treasury and retain the other half for local use.



Higinio J. Medrano

Higinio J. Medrano, Consul of the Republic of Cuba at Mérida, Yucatan

Mr. Medrano entered the Consular Service of the Republic of Cuba in 1909 as Chancellor in the Consulate at Philadelphia, Pa., after the completion of a partial law course at the University of Pennsylvania. He held his post of Chancellor for 13 years and was promoted by General Mario G. Menocal, President of Cuba, in 1920 to Vice-Consul at New York. Mr. Medrano in the discharge of his official duties has been one of the most active members of the Cuban Consular Service. He has given various lectures on Cuban subjects at the Columbia University, has been the orator at all the functions of the Comité Pro-Cuba, a patriotic institution, and has rendered very valuable service to both Cuban and American concerns and institutions. Mr. Medrano is the author of a number of books on philosophical and literary subjects and can be pointed out as one of the examples of energy, perseverance and talent in the foreign service of Cuba. General Machado, with his promotion, has set a good example in the compensation of merits.

Guantanamo Sugar Co. Dividend

Guantanamo Sugar Company has declared a dividend of \$2 per share on its preferred stock, payable September 30 to stock of record September 15.

Cuban Chamber of Commerce in the United States, Incorporated

The Cuban Chamber of Commerce in the United States, has entered the second year of its organization with an extensive program of activities to promote and maintain the commercial and friendly relations between the United States and Cuba.

At the present time the Chamber is actively engaged in the organization of the Cuban Exposition which will be held at the Hotel Pennsylvania November 16th-21st, 1925.

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Economic Problems

The extremely low price of sugar that has prevailed during the past season has brought about a situation that may prove embarrassing for the sugar industry in the future. Co-operation between the growers of cane, and the mills which grind and convert it into sugar, is absolutely essential to success, and this, as a rule, prevails where disturbing influences do not get in their malign work.

The laying out of a sugar plantation, the erection of the mill, the equipment of machinery and the successful management of a sugar mill means not only the investment of millions of dollars, but the selection of skilled mechanics, expert chemists, and practical men in every branch of the enterprise. The purchase of land alone involves a big outlay in money, since the making of cane sugar today, in competition with the beet industry, demands an area of land far in excess of any other agricultural industry, running, as it does, anywhere from ten to fifty thousand acres for each mill or grinding center.

Throughout these great estates a perfect network of railroads must be constructed in order to bring the cane from distant parts of the plantation to the mill. Switches, scales for weighing, trains of cars and locomotives, must be equipped and kept in operation throughout the entire grinding season. The clearing of land, planting, cultivating, cutting and loading of the cane into carts or automobile trucks, for conveyance to the freight cars, is done usually by colonos.

To each colono is assigned, as a rule, anywhere from 200 to 1,000 acres of land, for the care of which he is held responsible. At the beginning of each season a contract is carefully drawn up and signed by both parties, which specifies in clear terms the conditions under which the cane is to be ground, and the share which the colono is to receive in pounds of sugar, or its equivalent in money. This contract is binding for a year, or throughout the season, at the expiration of which time, it may be extended by mutual consent or may be canceled by either party.

What is known as an arroba, or 25 pounds, has always been used in Cuba as a unit of measure. The sugar extracted from the cane varies from 8 to 12 pounds for each 100 pounds of cane ground. The average may be said to be 10, although it sometimes runs as high as 13½, depending upon the sucrose content of the cane. Of this yield in sugar the colono receives approximately one-half, or 5 pounds of sugar for every 100 pounds of cane delivered. The colono is usually paid in accordance with the prevailing price of sugar in the open market; the average every fifteen days is taken. In the provinces of Camaguey and Oriente, where the land is rich and the soil deep, the profit to the colono, and also that of the mill, is usually higher than in the west where the lands have become more or less exhausted through successive croppings.

Ninety-five per cent of the area under cultivation in cane in the eastern provinces is owned by companies that have bought up these large estates for the production of sugar. As a rule, the planting, cultivating and cutting of the cane is left to the colono. Any reliable farmer or cane grower with a few thousand dollars in cash, can present his credentials to the manager where new mills are being started and sign a contract for the coming season to cultivate, cut, and deliver all the cane he can take care of with the capital at his disposal. If the Administrator has confidence in the man, he will usually advance to the colono two or three times the amount of capital which the latter possesses, in order to encourage him to produce more cane. This enables him to secure the necessary oxen, carts, general equipment and labor required for the cultivation of the land under his direction. The profit accruing to the colono, which he receives from his share of the sugar produced, when the product is selling at above 3 cents a pound, is frequently large. Several colonos who were cultivating big estates during the season of '23-'24, when sugar sold at 4 cents a pound, are said to have made over a million dollars.

When the price falls below 3 cents, however, this profit rapidly disappears, and at 2.5 cents there is little or no profit, either for the company or for the colono. Cuban colonos,

as a rule, are not very provident. After a good season the temptation to buy automobiles and spend the summer in Europe is strong. But when the returns coming from the low price of sugar places the balance on the wrong side of the ledger the story is different, and this is exactly what occurred this past winter, and what will again occur during the next grinding season.

When all goes well and the profits are satisfactory on both sides, harmony and co-operation between the colonos and the company owning the mill is quite natural, but when the low price of sugar brings about an unavoidable loss the situation changes. The Administrator says to the colono: "I am sorry that you have lost money, but do not forget that our losses have been much greater than yours, so above all things let us pull together, and work in harmony in times of stress, where mutual loss is unavoidable, rather than fight each other in the hope of getting the best end of a bad bargain."

This spirit in the past, as a rule, has prevailed, and would probably continue were it not for a disturbing element in the person of some local politician who, in order to gain fame and the good will of his constituents, poses as a protector and advocate of the rights or interests of the colonos. This advocate, who usually is a provincial office holder or a Representative in Congress, informs the colonos that if they will all work together, and follow his leadership, he will compel the companies who control the sugar mills to give the colonos a larger share of the returns, regardless of the price at which sugar is selling in the market. The politician has everything to gain and nothing to lose, while the colono is pleased with the suggestion of getting more for his efforts whether the conditions justify it or not.

It is this situation that has brought about the present "Farm Bloc," organized by the colonos of Camaguey and Oriente recently. At a recent meeting in the City of Camaguey, under the direction of their attorney, the following demands were stipulated and will be presented to the mill companies for their consideration in the near future:

1. "That 6 arrobas of sugar, received by the colono for each 100 arrobas of cane, shall be the minimum.
2. "That liquidations are to be made every fortnight from the average price at the port where the sugar is shipped.
3. "That the sugar is to be received and paid for in accordance with the weight obtained at the plantation derrick.
4. "Any differences are to be settled by representatives of the mill, of the planter, and a third person.
5. "Advance payments made by the mill will be returned in the following form: after discounting the expense of cutting and hauling the cane, 30 per cent of the sum due will be turned over to the planter in cash, and the rest will be used to capitalize the debt to the mill.
6. "The planter will not pay for the bag in which his sugar is shipped.
7. "Burned cane will be received and ground while it is in good condition.
8. "The mill locomotives will use petroleum as fuel.
9. "Switches and derricks will be installed in accordance with the desire of the colonos, and will be paid for by the mill owners.
10. "The mill owners and the colonos or planters, will share the expense of destroying any harmful disease, such as the mosaic."

Some of these conditions have prevailed for many years, and just why they were included in the present demand is not clear. Some of the stipulations are fair and reasonable, and if not already enforced will probably be conceded. Up to the present time there has been no union among the colonos or planters of cane, each claiming, and probably with reason, the right to make his own contract with the administrator at the mill. In this the personal equation seems to be more or less unavoidable, since in nearly all large estates, the location, character of the soil, and other conditions prevailing, vary, as do the characters and abilities of the colonos themselves.

The attitude of the companies, or just what reply the mill owners may make to these demands cannot yet be determined. One thing, however, seems evident, which is, that

the colonos will be required to fulfill the conditions of the contracts which they have signed for the allotted time, or cancel them and quit, thus making room for other colonos whom the administrator of the mill may select, or leaving the company free to cultivate its own cane, under what is termed "administration," if it chooses to do so.

In past years, through good seasons and bad, there has been complete understanding and co-operation between the planters of cane and the producers of sugar, or mill owners, but the latter naturally think that in hard seasons of low prices and unavoidable loss, the cane planter should take his medicine and share the loss with the mill. They also believe that there would have been very little, if any, trouble had it not been for the interference of over-ambitious politicians, who, like the attorneys employed by the labor unions, receive not only votes at election times, but big fees whenever they can succeed in squeezing something out of the so-called "capitalists", or owners of stock in the various industries.

The 180 odd mills of Cuba will probably answer the above demands by suggesting that the colonos appoint representatives as delegates, who are actual planters of cane, and not politicians, who will meet a like number of delegates representing the mills, and there, in common council, go into the details of the case and adjust their difficulties on a fair, "give and take" basis.

In spite of all the annoyances, and obstacles to progress, the various industries in Cuba will continue to go ahead, and more cane will be ground, and more sugar made, during the coming season than in that of the past. Although no profits may be returned, nature refuses to go on a strike, and sugar cane is growing with leaps and bounds under the impulse of Summer showers. A great deal of cane will undoubtedly be burned next Winter, since this insures immediate grinding, and, while colonos and mills are discouraged at the low price of sugar, we realize that the natural conditions which control the economic production of sugar in this Island, are more favorable than in any other part of the world.

United Fruit's Sugar Crop

With the closing of Central Preston's grinding campaign the United Fruit Company has completed crop operations for the season in Cuba. Preston made 583,543 bags of sugar, which added to Central Boston's previously reported output of 511,884 bags gives the company a total production of 1,095,427 bags, against 751,802 bags in 1923-24. In that season Preston made 475,782 bags and Boston 276,020. The present is the second largest crop ever turned out by the United Fruit mills, having been exceeded only by the 1922-23 outturn of 1,402,084 bags.

No Uniforms for Service-Car Drivers in Habana

It is reported to the Department of Commerce that special uniforms for drivers of service cars in Habana are not being required. The article of the traffic regulations stating that the drivers must wear a certain uniform, which was to be enforced early in July, and later postponed to early in August, will not be enforced at all.

Workmen's Compensation Insurance

In the *Gaceta Oficial* of May 15, 1925, there was published decree No. 824 amending the regulations of the workmen's compensation law of June 12, 1916, in force since October 26, 1917. The first-mentioned decree fixes the minimum rates for premiums which may be charged by insurance companies engaged in workmen's compensation insurance, and amends various articles of the regulations.

New Cuban Military Attache at Washington

Captain Enrique A. Prieto has been named new military attache to the Cuban Embassy in Washington. He is an architect and civil engineer and has acted as professor of artillery and mathematics at cadet schools in Havana.

Dividend Declared

The American Sugar Refining Company declared the regular quarterly dividend of \$1.75 on its preferred shares, payable October 2 to stock of record September 1.



Manganese Mines near Santiago de Cuba

Mines and Mining

PART 2

The Mineral Wealth of Cuba—Manganese and Chrome Ores

By George Reno

Structural steel, to-day and in the future, will probably play a greater part in the world's progress and development than any one element resulting from the products of nature. The demand for steel, without which modern warfare would be practically impossible, was greatly increased by the European conflict. In the manipulation of iron ore and in the manufacture of the various types of steel which play such an important part in structural work, the use of manganese as a flux, and of chrome and vanadium as alloys, are absolutely essential in order to produce the elasticity and hardness which give steel its real value.

Manganese ores are found in California, Colorado, Arkansas, Georgia, Michigan, New Jersey and Virginia, but nowhere within the limits of the United States have the deposits of manganese proved to be sufficiently extensive to supply the domestic requirements of the country, even in normal times. The total output of manganese in the United States for the year 1901 was less than 12,000 tons. Southern Russia contains large deposits of manganese, but up to 1919, 70 to 80 per cent of the manganese consumed in the United States had been brought from the interior of Southern Brazil. The imperative demand for both manganese and chrome during the war with Germany compelled the Washington Government to seek other sources in order to save time consumed in getting shipments from Brazil.

Small amounts of managanese had been mined in Cuba during the ten years previous to the war, but the extent of these deposits remained unknown, until in the Spring of 1918, the United States Geological Survey and Bureau of Mines, sent two expert engineers, Messrs. Albert Burch, Consulting Engineer of the Bureau of Mines, and Ernest F. Burchard, Geologist of the U. S. Geological Survey, to Cuba in order to ascertain the quality and quantity of manganese and chrome that might be furnished by that Republic.

The party reached Havana in the latter part of February and were there joined by Mr. E. A. Montelliu, a Cuban mining engineer, detailed by the Treasury Department to act as an escort and associate throughout research work in this Island. During the two months of their stay these gentlemen made a rapid survey of the most important chrome and manganese zones, the report of which was made to the United States Government in September of 1918.

The chrome deposits, which up to the time of the visit of these engineers, had attracted little attention in Cuba, are all located within distances varying from ten to twenty-five miles from the north coast of the Island. Some twelve groups were examined which displayed considerable diversity in quality, size, and accessibility.

Manganese claims had been registered near Mantua and Viñales, in the Province of Pinar del Rio, but time did not permit an extended study of these deposits. Manganese is also found in the district of Cienfuegos and Trinidad in the Province of Santa Clara. By far the largest deposits of these ores, and the only ones that have been extensively worked are located in the Province of Oriente.

The most westerly deposit of chrome visited by these engineers was found in the eastern part of Havana Province, and two others were located near Coliseo, in the Province of Matanzas; another near Canasi, and a third near the automobile drive, about half way between the City of Matanzas and Cardenas.

In the Province of Camaguey, only a few miles north of the city, valuable deposits of chrome are found quite accessible to railroad shipment. Other chrome deposits were found in Oriente; one near Holguin; another south of Nipe Bay; and three groups in the mountains not far from the coast between Punta Gorda and Baracoa.

All of the chrome deposits examined by these engineers were met in serpentized basic rocks. The ore lies in lenticular and tabular masses, ranging in thickness from one to more than fifty feet. The ore generally is found grained to medium coarse, and varies from spotted material consisting of black grains of chromite ranging in diameter from a thirtieth to a quarter of an inch, imbedded in light green serpentine, to a solid black material containing little or no visible serpentine.

Most of the masses of ore are highly inclined, while some of them are exposed in ravines, on steep hillsides and in mountainous or hilly regions. The deposits west of Nipe Bay are in areas of moderate relief, while those near Camaguey are in an area of very low relief. The deposits in the eastern part of Oriente which were the largest visited, are in a mountainous country difficult of access.

In Havana Province small pockets of chrome ore have been found two miles south of Canasi, ten miles from the railroad. A little mining has been done there and about six hundred tons of ore shipped. In Matanzas Province small deposits of chrome were visited on the "Jack Claim," seven miles north-west of the railroad station of Mocha, and on the "Ana Maria" Claim, ten miles west of Cardenas. The latter is only two miles from the railroad but no ore has ever been shipped from it. Considerable development work has been done on the "Jack Claim" and about 450 tons of ore were shipped in February of 1918. An analysis of samples gave Cr2O3 in varying quantities from 36% to 43%.

Another promising claim was located in a group of serpentine hills about a mile north of kilometer 36, on the automobile drive between Cardenas and Matanzas. The outcropping chrome and loose lumps found on the surface were of quite high grade.

Since the visit of the American engineers referred to, another chromite claim has been located some four kilometers from the railroad near Coliseo, in the Province of Matanzas. The owners of this claim announce an unlimited quantity of good ore, from which during the war they shipped an average of two carloads a day to the United States by rail, using

the Havana-Key West ferry. Messrs. Burch and Burchard, in their report, state that the geological conditions in the areas referred to above warrant further explorations.

The deposits of chrome examined in Camaguey consist of three groups which lie along a narrow zone beginning nine miles north of the City of Camaguey, and extending southeast to a point two miles from Alta Gracia, on the Nuevitas railroad. A level plain, covered with a thin mantle of clay and limenite gravel, extends from Camaguey northward until its junction with the Sierra de Cubitas, rendering the country easily accessible by wagon road.

Float ore is found in this zone, and broken ore, caps some ten or twelve small elevations that raise from five to fifty feet above the surrounding surface. There are also fifteen or more outcroppings of chromite, most of them obscured by broken ore and rock debris. On the surface can be seen a considerable quantity of ore in the form of broken rock or float that will amount to probably 20,000 tons. Ten samples taken from these deposits carried from 27 per cent to 36 per cent chromic oxide. This is a low grade ore but is suitable for certain purposes, sufficient water being available for concentration within a mile of the deposit.

Twenty miles north of Camaguey, near the eastern end of the Cubitas iron ore beds, are several other deposits of chrome that were examined by A. C. Spencer of the United States Geological Survey in 1907. All of these denoted considerable quantities of chrome float, apparently of high grade, and the occurrence of tabular bodies of chrome from one to five feet in width. On one claim boulders of chrome are distributed over a belt for 1,700 feet, and on another, ore is found over an area of 150 x 200 feet. On another claim, five deposits lie within an area measuring 1,200 x 3,000 feet. One of these seems to be continuous for about 900 feet.

ORIENTE PROVINCE

Both chrome and manganese are scattered throughout various sections of Oriente and the largest deposits of these minerals, as well as those of iron, are located in this Province. Small deposits of chrome were found some seven miles northeast of Holguin, on the slope of a low region serpentine that lies between two higher ridges of steeply inclined limestone, about a half mile distant from each other. One pocket had yielded about 150 tons of ore which, with 25 tons of float, was shipped in March of 1918. Analysis of samples show an average of 34 per cent of chromic oxide. The maximum content of chrome in pure chromite is 46.66 per cent and the content of chromic oxide is 68 per cent. Late in July of that year the Company's consulting engineer reported that a large deposit of 40 per cent ore had been developed, and that about 500 tons were ready for shipment.

One of the largest deposits of chrome is located on the south slope of the Sierra de Nipe, seven miles southeast of Woodfed, headquarters of the Spanish-American Iron Company's Mayari Mines. The upper part of the ore body crops out of a steep hillside, about 300 feet above a mountain stream, flowing into a small tributary of the Mayari River, and is approximately 30 feet in thickness.

Where it does not crop out, it lies between 30 to 50 feet below the surface. The ore varies in quality, the better grade carrying as high as 48 per cent of chromic oxide, with 7 per cent to 15 per cent of silica, and 7 per cent to 10 per cent of iron. The deposit was estimated to contain about 50,000 tons of chrome ore, 25,000 tons of which would carry more than 40 per cent of chromic oxide, and the remaining 25,000 tons, between 34 per cent and 40 per cent.

The "Cayo Juan" group of chrome ore claims are located on both sides of a small river emptying into Moa Bay, and lie at an altitude of about 750 feet above the sea level. An outcrop that extends around the hill for about 300 feet, and covers some 6,400 square feet, has been prospected. Analysis of samples gave an average of 38.1 per cent chromic oxide.

The "Narciso" claim, which nearly surrounds that above group, includes an ore body that crops out on a steep hillside, about 500 feet above the river. A sample of ore from this outcrop showed an analysis of 34.8 per cent of chromic oxide.

The chromita claims, on the left side of the river, contain three known bodies, and hundreds of tons of boulder float ore, in an arroyo or gulch. The ore bodies are exposed on the side of the bluff at a height of 150 to 300 feet above the river.

The group of deposits is about eight miles by mule trail from the old wharf at Punta Gorda, to which a road would have to be built along the valley of the Cayo Juan, a narrow gorge, bordered in many places by steep cliffs. A light tramway for mule cars, or a narrow gage steam railway, would probably be the most economical way of removing the ore.

The "Potosi" Chrome claim is located on Saltadero creek, four miles above its mouth. This is a tributary of the Yamanigüey river. The ore body is a steeply deepening lens that reaches a depth of more than 100 feet, and at one place has a thickness of 250 feet, with a length along the strip of 45 feet.

The upper edge crops out about 325 feet above the creek bed, and about 600 feet above sea level. The ore is medium to coarse grain. Some of the material is spotted, but most of the outcropping and float ore is black and of good appearance. According to analyses that accompanied G. W. Maynard's report, the ore runs from 31 per cent to 41 per cent chromic oxide. This deposit contains from 10,000 to 20,000 tons, but the work of getting the ore to the coast involves rather a difficult problem in transportation.

A small body of chrome ore occurs in the "Constancia Claim," three-quarters of a mile from Navas Bay, and about 100 feet above sea level. The ore body appears to extend 50 feet along the face of a gentle sloping hill. It is not of uniform quality, the chromite being mixed more or less with serpentine gangue. About 6 feet of better ore, however, is exposed in a cut some 25 feet in length. This contains 39.4 per cent chromic oxide.

Water for concentration is available near by in the Navas River, and a road could easily be built to the bay; but this is not deep enough for steamers, so it would have to be lightered four miles north to Taco Bay, or ten miles southeast to Baracoa. Another body containing about 10,000 tons of chrome ore of low grade lies in the mountains eight miles south of Navas Bay.

RESUME OF CHROME

The reserves of marketable chrome ore, prospected in Cuba during the summer of 1918, range from 92,000 long tons to 170,000. The largest deposits of chrome known, or at least the largest of those visited by engineers Burch and Burchard during that year, are those of the "Caledonia," the "Cayo Juan," and the "Potosi" claim, near the northeast coast of Oriente Province, in a region rather difficult of access.

According to indications they will probably yield 130,000 tons of ore that can be brought to the present commercial grade by simple concentration.

The next largest group of chrome ore is located near the city of Camaguey. The deposits are very easy of access, but are of a lower grade than those of Oriente. They appear to contain about 40,000 tons of ore that can be gathered by hand from the surface.

Near Holguin, Cardenas and Matanzas, are small stocks of ore, possibly a thousand tons, ready for shipment. The most productive chrome mine operating seems to be that of the Britannia Company, located twelve miles southwest of Cardenas, and about eighty miles from Havana.

DISTRIBUTION OF MANGANESE ORE

Manganese ores of Cuba occur principally in sedimentary rocks, such as limestone, sandstone and shale, that in places have become metamorphosed, but in the most heavily metalized zones, they are associated with masses of silicious rocks, locally termed "jasper" and "bayate." In one locality the manganese and its silicious associates were found in igneous rocks such as Latite-porphry and Latite.

The sedimentary rocks with which manganese deposits are usually associated, are in some places nearly horizontal, but generally show dips ranging from a few degrees to forty-five, or more. The inclined beds frequently represent portions of local folds. Some faulting is shown in the vicinity of the manganese deposits, and may have influenced their localization.

Manganese ore is found in Oriente, Santa Clara and Pinar del Rio Provinces, but only in Oriente has it been found in large commercial quantities. In this Province the deposits are in three areas: one north and northeast of Santiago de Cuba, another south of Bayamo, and Baire, and the third on the Caribbean coast, between Turquino mountain and the

harbor of Portillo. The first two include the most extensive deposits in the Island. In Santa Clara, ore has been found near the Caribbean coast and close to Trinidad; and in Pinar del Rio Province manganese ore crops out north of the capital and further west, near Mendoza.

The deposits of the northeast coast and those south of Bayamo in Oriente, distant from each other approximately 100 miles, show nevertheless an interesting concordance in altitude. They stand from 500 to 600 feet above sea level, and nearly all of them are at altitudes between 600 and 700 feet, suggesting a relation, perhaps, between the deposition of the manganese and a certain stage in the physiographic development of that region. Most of the manganese ore deposits are above drainage level, on the slopes of hills of moderate height; the maximum relief in the immediate vicinity of the deposits seldom exceeds 500 feet.

The deposits of manganese ore in Cuba are rather diverse, but may be grouped into three general physical types: Buried deposits, irregular masses, associated with silicious rocks or "jasper," and deposits in residual clay. The buried deposits comprise several varieties, one of the most common being poorly consolidated beds of sandy chloritic material, cemented with manganese oxide that fill inequalities in the surface of hard rocks.

Other bedded deposits clearly replace limestone, shale conglomerates, or other rocks, and tabular masses of ore are interbedded with strata of nearly horizontal limestone. The ore consists largely of Pyrolusite, but many deposits contain Psilomelane, Magnite, and Wad, or mixtures of all these materials. The richness of the deposits varies considerably. Most of the best masses are associated with "jasper," but masses that have replaced limestone are also very rich.

The deposits of manganese examined in Santiago de Cuba district comprise the Ponuco group; the Isabelita, Botsper, Boston, Pilar, Dolores, Laura, San Andrea, Cauto, or Abundancia, Llave and Gloria mines; together with the Caridad and "Valle Prospect." All of these properties except two, are producing ore. The Panuco, Isabelita and Boston mines were opened many years ago, and have produced large quantities of ore. The Panuco and Isabelita are still rather large producers, although the grade of ore is not quite so high as that shipped in the early days.

The Panuco mine is connected with the Cuba railroad at La Maya by a branch two miles long, and a narrow gage track from Cristo on the Cuba Railroad, to the Isabelita mine three miles distant. Extensions of these lines to the Boston and Pilar mines, can be made with little additional outlay. The Dolores and Laura mines are near the Guantanamo Western Railroad, not far from Sabanilla Station. The Cauto mine is adjacent to the Cuba Railroad near Manganese Station.

The other mines are from ten to twelve miles from the railroad, to which at the present time, the ore is hauled mainly by ox-cart. In the rainy season these roads are impassable, and even in dry weather they include many difficult places, so that the quantity of the output is much less than could be mined under different circumstances.

The ore is mined by hand, mostly from opened cuts, though short drifts and tunnels have been run into the ore at the Ponuco, Cauto and Laura mines, and a slope has been driven on a thin, tabular mass of ore, between strata and limestone, with a dip of about 34 degrees at Botsford. High grade ore may be selected in mining the greater part of these deposits, but most of it requires mechanical treatment, such as log-washing, and giggering to free it from clay, sand and other impurities.

At one mine the ore is cleaned by racking it over a horizontal screen in a stream of water. Log washers are in operation in some mines and under construction in others. At one mine a system of washing, screening and giggering is employed. The daily production of manganese ore during the European War from this district was about 300 tons. The approximate average composition of the ore now shipped is as follows:

Manganese.....	38.885 per cent
Silica.....	12.135 per cent
Phosphorus.....	.084 per cent
Moisture.....	11.201 per cent

The greater part of the manganese ore from this district contains from 36 per cent to 45 per cent manganese; a few thousand tons running over 45 per cent.

The manganese deposits examined by Burch and Burchard, south of Bayamo, consist of the Manuel and Costa groups, 18 to 23 miles by wagon road, southwest of Bayamo; the Francisco and Cadiz groups, 15 to 20 miles southeast of the same city; the Guisa, Yego, and Charco Redondo, 7 to 8 miles southeast of Santa Rita; and the Adriana and San Antonio mines, 9 to 10 miles south of Mayari. Other deposits, further to the southeast, are in what is known as Los Negros district. But little mining, however, has been done so far in that section. Deposits of milling ore are available and will undoubtedly be developed whenever prices are favorable.

In April of 1918 it was estimated that the output of manganese from this district during the year would not exceed 12,000 tons, half of which would be high grade carrying from 45 to 55 per cent manganese. Later development, however, gave a much larger output.

The reserve of manganese in this particular section is estimated at about 50,000 tons, but this did not include the Los Negros district, which lies further southeast, 25 to 30 miles from the railroad. Engineers who have examined this zone believe that with good transportation facilities it will yield a large output of high grade ore from many small deposits in the neighborhood.

CONDITIONS AFFECTING THE MANGANESE INDUSTRY

Aside from difficult transportation facilities in some districts, one of the chief obstacles in the way of a large yield of ore from Cuban mines, has resulted from difficulty in securing and holding a sufficient number of miners in some localities. Many workmen prefer to work in the sugar mills, where good food is more readily obtained and living conditions are easier. The building of narrow gage railroads, or substantial concrete highways, in which the Federal Government will probably assist, will contribute to the successful mining of manganese in the Province of Oriente. The fact that most of the ore is removed during the dry season, when Cuba's roads are taxed to the limit, carrying sugar cane to the mills, renders transportation by railroad rather uncertain.

The output for the year 1918 was approximately 125,000 tons, more than 90 per cent of which ran from 36 to 45 per cent manganese. The remainder was of a still higher grade. The reserves of manganese ores, from the mines above referred to, in Oriente Provincé, are estimated at from 700,000 to 800,000 long tons. Eighty-five per cent of this ore is located in the district northeast of the City of Santiago de Cuba.

Cuba's greater mineral wealth consists undoubtedly of the enormous deposits of excellent iron ore on both the north and south coast of Oriente. This ore extends over hundreds, perhaps thousands of square miles. Most of it is located either on or near the seashore, descent to which is secured by gravity. The only treatment necessary is a process of washing out the earth, which is very inexpensive and leaves the ore ready for shipment to the big smelters of the North. Fortunately, too, nature has provided almost the exact percentage of nickel in combination with the iron which renders it in quality equal to the best Swedish product. In iron, coupled with deposits of chrome and manganese, Cuba has, and will have for many years to come, an almost inexhaustible supply of the one mineral or metal for which increase in construction furnishes a fairly stable market.

OTHER RARE ORES

Search for more precious ores was an obsession with the early Spanish explorers and conquerors of the Western Hemisphere. Although they were not fond of manual labor, they were natural prospectors, and throughout the first three centuries after Cuba's discovery, in fact, up to the abolition of slavery in 1878, a great deal of sporadic prospecting was done by their descendants.

In almost every province of the Island, especially in the mountainous districts, openings and workings may be found that were made a hundred or more years ago. Some of these proved fairly profitable, even when worked in a small way, and considerable amounts of ore were taken out at various times. Gold and silver, of course, were the chief objects of these prospectors, while copper indications were not ignored.

In the mountainous districts of Pinar del Rio, quite a number of ancient workings, for many years abandoned to the bats and owls of the forests, are occasionally found. One of them only a few years ago, through accident, caused the loss of three lives, an engineer named Morse and two companions who entered an old mine a few miles south of the town of Bahia Honda. The roof of this mine had been shored up with hard wood timbers which still remained intact. Unfortunately, however, rotting wood will produce an explosive gas which sometimes accumulates to a density that becomes dangerous.

Into this mine Mr. Morse and several companions entered in a tour of exploration. Since dangerous gases are usually associated only with coal mines, Mr. Morse apparently had no fears, and when a short distance within the old tunnel he lighted a torch, an explosion occurred which killed him and three of his companions, severely injuring two more. This unfortunate accident has been a lesson to others who have been tempted to penetrate within the depth of old, abandoned mines where rotting timbers have remained as supports to the roof.

In the same neighborhood, a little further to the southwest, is a somewhat famous district in which mines of gold, silver, and mercury were once said to exist, but for many years have been abandoned. In most cases the original owners, who were Spaniards, filled up the openings with boulders, over which trees and vines have spread a screen or curtain of mystery that at present renders them difficult to find.

Within the last few weeks several parties have made attempts to rediscover the old mercury deposits. But the only man who knew the location with certainty, and who is said to have occasionally brought out wine bottles filled with pure liquid mercury worth \$70 a pound, died a year ago carrying with him the secret of its location.

Strange as it may seem, the urge which impels men to dig beneath the surface of the earth in search for gold, silver, platinum, mercury, and the rarer metals, is almost irresistible, and it is more than probable that some of these old abandoned and lost diggings may yet bring forth another bonanza as did the discovery of Matahambre, the richest copper mine in Cuba, several years ago.

Annual Meeting of Cuban Chamber of Commerce in the United States, Inc.

The annual meeting of the members of the Cuban Chamber of Commerce in the United States, and the election of officers and directors was held July 30 at the offices of the Chamber.

The following were elected for a period of one year:

MR. MARIANO L. MORA, *President* (Re-elected)
MR. FRANK C. LOWRY, *Vice-President*
MR. AURELIO PORTUONDO, *Vice-President*
MR. EARL B. WILSON, *Treasurer* (Re-elected)
MR. RAUL GARCIA, *Secretary* (Re-elected)

To fill the vacancies of the Directors whose terms expired this year, the following were elected:

MR. FRANK C. LOWRY, of E. Atkins & Co.
MR. A. H. GREGG, President Faber, Coe & Gregg Co.
MR. GREGORY H. ILLANES
MR. JUAN F. RIVERA, Manager National City Bank, Havana
MR. OSCAR CINTAS, Vice-President of the American Car and Foundry Co.

Regla Warehouses Burned

Six warehouses belonging to the United Railways at Regla, across the bay from Havana, were destroyed July 26th by fire, together with their contents which included sugar and machinery belonging to the Cuba Cane Sugar Corporation. The loss, estimated at \$2,500,000, is said to be fully covered by insurance.

The warehouses burned are those numbered 42 to 47. No. 42 was leased by the Cuba Cane Corporation and contained between 5,000 and 6,000 bags of sugar, together with a quantity of sugar mill machinery and supplies, which were destroyed.

Importation of Cottonseed Oil for Bread Making Permitted

The importation into Cuba of pure cottonseed oil is permitted and its use for bread making allowed, according to a ruling of the chief sanitary authority of Cuba.

The Cuban Exposition

As a means of giving the people of the United States a better insight of Cuba the Government of Cuba has combined with the Cuban Chamber of Commerce in the United States in giving the first annual Cuban Exposition which opens at the Hotel Pennsylvania November 16th and will continue each day until November 21st.

The Cuban Exposition will be the most significant event in the history of Cuban-American commercial relations. It will be of great interest and assistance to American business men and to the public in general, as an invaluable source of information. It will enable them to realize, to a fuller extent, the importance of Cuba as a market for American products; the extraordinary economic and industrial development of the Island Republic; the unequalled fertility of her soil and the opportunities it offers for the development of great agricultural enterprises. It will enable them to appreciate the scenic beauties of Cuba; to learn of the charming hospitality of her people; of the marvelous progress attained by Cuba since her inauguration as an independent republic; of her history, culture and her attainments in the fields of sciences and arts.

The Cuban Exposition will be of great assistance, not only in promoting the commercial relations between the two countries, but it will also be of invaluable service to thousands of Americans, who will obtain first hand information regarding the many attractions offered by Cuba to the tourists during the Winter season. Complete information will be available regarding places of interest, travel facilities, hotel accommodations, rates, etc.

The character of the exhibits that will be brought from Cuba, the decorations in which the tropical foliage will predominate, and the music provided by Cuban artists, all will contribute to create a typically Cuban atmosphere.

The cooperation received from the American firms to have exhibits there has been most surprising to the committee, over forty booths have been reserved up to last week and there is no question that the booth space will be over subscribed. Mr. Raul Garcia, Secretary of the Cuban Chamber of Commerce in the United States, sailed on August 29th for Havana to arrange some of

the details for shipment of exhibits from Cuba.

Any information requested on the Cuban Exposition will be gladly given at its office 67 Wall Street, Room 611.

Cuban Forests to be Exploited

It is reported that utilization and conservation of forest resources in the American tropics, particularly with respect to developing rubber supplies, is to be made the subject of special study by the Tropical Plant Research Foundation, an organization formed under the auspices of the National Research Council and co-operating closely with the United States Departments of Agriculture and Commerce and other Government agencies.

This work will begin, it was announced, in a project in Cuba, where the foundation already is engaged in sugar cane investigations. Active director of the forestry work in Cuba will be Dr. H. N. Whitford, who as chief of the crude rubber section of the Department of Commerce directed the survey which the department made throughout the world of available rubber sources upon which this country might draw in order to be free from foreign monopoly and restrictions.

This survey of forest properties will be made in the eastern part of the island for two large concerns, the United Fruit Company and the Cuba Company.

The Cuban experiment, it is believed, will lead to wide extension of scientific investigation into the forest resources of the Latin American countries lying in the tropical region, including probably Mexico, Central America, Panama, Brazil and several of the other South American countries.

Owing to the growing shortage of the hardwood supply in the United States and the fact that wood is being used in this country four times as fast as it is being grown, authorities here are looking to the forests of South and Central America as future sources of supply for American manufacturing needs.

Cuba Co. Dividend

The Cuba Company has declared a quarterly dividend of \$1 on its common stock, payable September 1 to holders of record August 15.

Cuban Commercial Matters

Cuban Markets for American Goods

PART 2

*By Julius Klein, Director,
Bureau of Foreign and Domestic Commerce*

Advertising

All of the familiar forms of advertising used in the United States are employed for the promotion of sales in Cuba. Products are brought to the attention of the consumers by means of newspaper and magazine advertising, street-car advertising, posters, billboards, motion-picture screens, electric signs, handbills, samples advertising novelties, catalogues, and direct mail solicitation. While all of these methods are employed, the use of some is confined mainly to Habana, and in other cities are used rarely, if at all. Electric signs and billboards may be cited as examples of this restricted use.

Advertising has not been developed in Cuba to the extent to which it has in the United States, and conditions are said to be similar to those existing in this country two decades ago. Advertising does not play such a large part in Cuban purchases as it does in this country, and a few commodities are purchased by trade names only. Much of the purchasing done in Cuba is by servants, many of whom are illiterate, and ordinary advertising methods make little appeal to them. Retail practices vary widely. Fixed prices are the exception rather than the rule, and the marked prices in many cases are subject to a considerable discount to the customer who is willing to drive a bargain.

Advertising has helped considerably to expand our sales in Cuba and will probably continue to do so and become of increasing importance in the future. In introducing a new product into the Cuban market the local merchants usually look to the exporter in this country to make the initial advertising campaign and create a demand for the product. The market is essentially Latin, and the effective advertising slogans and illustrations used in the United States can not be transplanted to Cuba and secure the same results. Much of the copy when translated into Spanish loses its effectiveness and appeal, and in many cases would be misunderstood. Proper presentation in Spanish is, of course, very important.

Newspaper advertising is effective and is done largely through the Habana daily papers, which circulate not only in the city of Habana but also throughout the island. There are many such papers published in Habana, but the best ones for advertising purposes are not difficult to select. Much of the advertising through this medium is done by local merchants, but some of it is done by American branch houses or agencies, and this latter class is on the increase. The papers, do not, as a rule, have fixed rates.

The large newspapers, from an advertiser's standpoint, present much the same appearance as American journals. For instance, one issue of a large Habana daily selected at random carries 113 advertisements, many of which contain illustrations, exclusive of the classified section. Of these 23 related to distinctly American products, while 72 were advertisements by local houses dealing in domestic and imported products. The remainder consisted largely of professional cards, with a few advertisements of distinctly European products. The advertisements of United States products represented a wide variety of goods, ranging from talcum powder to automobiles. Among other articles advertised were drugs, tooth paste, antiseptics, salves, cleansing powder, brushes, hosiery, cloth, typewriters, optical goods, and musical instruments.

Weekly and monthly magazines of general circulation such as are common in the United States are not available for effective advertising to the same extent as in this country. However, there are a number of magazines published in the United States which circulate widely in Cuba. There are also several technical magazines published in this country which offer a means of reaching a certain class of customers.

Trade-marks are probably of more importance in Cuba than in the United States,

as an attractive and striking trade-mark will go a long way toward bringing a particular article to the attention of a large number of people. The use of colors in trade-marks often produces the necessary arresting contrast. Registration of such trade-marks in Cuba is important.

There are a number of advertising agencies in Habana, the services which they render varying with the capabilities of the persons operating them. There is a small group, several of whom are Americans, who have made a study of the advertising means and methods in the Cuban market and base their operations and campaigns on lines similar to those employed in the United States. The majority are not, however, of this type, and offer little in the line of service. Some American firms use the latter mainly for the routine work of supplying space, translations, checking insertions, bills, etc., rather than for the writing of copy and the carrying out of advertising campaigns.

Canvassing the Cuban Market

RAILROAD TRANSPORTATION

Commercial travelers in Cuba experience no difficulties from transportation facilities such as are encountered in some Latin-American countries. Cuba is covered by a network of railroads, aggregating about 3,250 miles. These lines extend to all important commercial centers and render them easy of access from Habana or any other base point, and they furnish first-class accommodations.

There are three principal railroad systems in operation in Cuba—the United Railways of Habana, the Cuba Railroad, and the Cuba Northern Railway—and these three, with connecting lines, serve all parts of the Republic. The United Railways of Habana are centered in the Provinces of Habana and Matanzas and extend as far eastward as Santa Clara, the main line from Habana to Santa Clara forming the first leg of the through service to Santiago de Cuba. This system has lines and branches to all centers of importance in the areas served, extending to Matanzas, Cardenas, Colon, Sagua la Grande, Cienfuegos, and other cities. The Western Railway, a part of the United Railways system, extends from Habana westward through Artemisa, Bacunagua, and Pinar del Rio to Guane, extending over practically the entire length of the Province of Pinar del Rio.

The main line of the Cuba Railroad extends eastward from Santa Clara, the terminus of the United Railways, through Ciego de Avila and Camaguey to Santiago de Cuba, and with connecting lines reaches the principal centers in the eastern part of the island. From Marti the Cuba Railroad has two optional routes, the southern through Bayamo, where a spur connects with Manzanillo, and the northern route through Alto Cedro, with spurs running to Chaparra and Gibara, and south to Santa Cruz del Sur. Branches also extend from Zaza del Medio through Sancti Spiritus to Tunas de Zaza and from Placetas north to Caibarien and south to Trinidad.

The Cuba Northern serves the north coast, the main line extending from Chambas through Moron to Nuevitas and Puerto Tarafa. It has a branch extending north from Moron to San Fernando and south to Jucaro, connecting at Ciego de Avila with the Cuba Railroad; also one extending from Velasco to Cunagua and from Woodin to Florida, on the Cuba Railroad, and on to Ibarra.

Although it is possible to travel extensively and comfortably over Cuba by rail, such travel is not feasible by road. The Provinces of Habana, Matanzas, and Pinar del Rio are the only ones which are connected by a continuous highway system. The other provinces have no direct connection by road to facilitate communication and to promote commercial traffic. The Province of Habana has a network of roads radiating to Batabano, Bahia Honda, Cardenas and intermediate points. The larger cities in the eastern part of the island have some short stretches of improved roads to surrounding points. The need of adequate road transportation is realized, and it is receiving considerable attention at the present time. The completion of a central highway with branch feeders, discussed elsewhere, would go a long way toward stimulating development of the areas served.

TAXICAB SERVICE

Taxicabs are available for transportation within the principal cities, as is also an organized baggage service. The taxicab service in Habana is charged for at the rate of 20 cents for each zone. Since nearly all the business district is included in one zone, nearly any point in the business center can be reached with the minimum charge. In Santiago, Camaguey, Santa Clara, Sagua la Grande, Cienfuegos, and other cities the charge is 40 cents per zone, with a \$3 per hour rate.

HOTEL RATES

In Cuba it is the practice of the railroads and principal hotels to grant half rates to traveling salesmen upon submittal of satisfactory evidence of their occupation. Hotel rates are high, especially in the tourist season, but a traveling salesman can nearly always succeed in obtaining a reduction, providing he is able and willing to bargain. In Habana, however, one can expect to pay from \$3.50 to \$5 for a single room with bath, if the usual conveniences and appearances are exacted. For a room without bath those with rates of less than \$2 would probably not be satisfactory.

The rates of the hotels in the cities other than Habana naturally differ, but a commercial traveler may secure a single room with bath, European plan, at \$3, providing he is willing to bargain for it and claim his prerogative as a traveling salesman. By procuring membership in the Asociacion de Viajantes del Comercio de la Isla de Cuba, located in the Manzana de Gomez Building 238, Habana, with membership fees of \$1 per month, a commercial traveler will be able to obtain materially reduced rates at most of the hotels upon presentation of his membership card. Application for membership must be made to the board of directors of the association, which votes on the acceptance of the proposed member. It may usually be expected that about 60 days will elapse before the application is finally disposed of. Even with a reduction secured, there are, of course, rates higher than \$3 in accordance with added comfort and convenience offered.

STEAMSHIP SERVICE

Cuba can be reached from this country by regular and frequent steamship sailings from New York, New Orleans, and Boston and by rail by way of the Key West Ferry. Local steamship lines operate on the north and south coast but are little used for commercial traveling from point to point, inasmuch as the railroads furnish much quicker means of moving about.

METHOD OF CANVASSING

In canvassing the Cuban market the line of procedure depends a great deal on the commodity that is being sold and the class and number of merchants whom it is desirable to visit. Oftentimes an agency can be placed in Habana which will take care of the distribution throughout the island. The large distribution houses located in Habana have connections in the principal centers and are often in a position to market a particular product to the best advantage. Santiago de Cuba is the second city in importance and the principal city in eastern Cuba. Much of the distribution of goods throughout that section of the island is handled from this city. In some instances more effective distribution is achieved by the placing of agencies in Habana and Santiago, or an agency in the former with a subagency in the latter. The large distributors in these two important centers are only ones which it is necessary to visit in case the product can be advantageously handled by this method. Cienfuegos, on account of its central location, is also conveniently used for distribution in the central portion of the country.

There is a growing tendency on the part of the larger dealers in cities outside of Habana to place their orders direct, and this feature should not be overlooked. However, a large proportion of the firms in the island are not sufficiently large and have not the facilities to handle shipments direct. These prefer to do business with the large distributing houses which can make prompt shipment with the minimum effort on their part. This, of course, simplifies the purchase of and payment for the goods and enables the merchant to work on a smaller stock and consequently with a smaller amount of

capital. Nevertheless, as these smaller dealers enlarge their operations they endeavor to handle their shipments direct.

The salesmen from the Habana houses travel extensively over the island, reaching even the small places which ordinarily would not be reached by a salesman from this country. Thus, the placing of orders with the Habana houses is much simplified by the frequent contact. The large firms in the capital are also in possession of considerable information in regard to the standings of firms, acquired by extended dealings in the market over the period of many years, which aids them in successfully conducting their business dealings. Many of them engage in financing operations which ordinarily would not be possible to handle from this country.

Travelers usually enter through Habana, unless only the eastern section is to be covered on the trip, and in such cases it is often more desirable to proceed directly to one of the eastern ports. After canvassing the situation in Habana it is usually easy to determine the course to pursue most advantageously in covering the remainder of the market.

Passports are not required from persons traveling in Cuba from the United States, although it is well to carry a birth certificate or some other means of identification. There are no taxes of any kind levied on commercial travelers, either by the Government or by the municipalities. Samples must be covered by a consular invoice and are subject to the payment of duty. Under certain conditions the duties are refunded in part upon reexportation of the merchandise. Advertising matter without commercial value and in small quantities is not subject to duty, but duty is levied when shipped in such bulk as to be considered as having a commercial value.

SHIPPING GOODS TO CUBA

The importance of following instructions in regard to shipments and in routing merchandise to the best advantage of the consignee has been brought out so many times that it should not be necessary to mention it here. Nevertheless, a number of cases have come to light in which complaints were made by the consignees that American firms failed to follow instructions or, in the absence of definite instructions, shipped in such a manner as to cause considerable additional trouble, delay, and expenditure to the consignee before the goods were finally in his possession.

Consul Frank Bohr, Cienfuegos, in commenting on recent cases of this nature, points out that facilities exist for the handling of shipments from the United States to the principal customs ports of Cuba by freight steamers, by rail, and by mail. The only difference in connection with shipments to the minor ports and to interior cities is that they should be sent via the Cuban port which is most convenient to the consignee. In some instances, when instructions have been disregarded, it has been because it was more convenient for the consignor to ship via a certain route or over a certain line, or his agents did so in endeavoring to have their own agents or representatives handle it. In other cases the causes have been either the inexperience of the shippers or forwarders or the lack of appreciation of the actual conditions affecting the shipping and receiving of merchandise in Cuba. There would seem to be little justification for disregarding a consignee's instructions, even though it may be somewhat inconvenient to the shipper or the reason for the route indicated may not be apparent.

He further points out that a consignee is evidently in a better position to take care of a shipment if it is delivered at the point where he has his business establishment. In the case of shipments by steamers to interior points, delivery should be at the nearest and most convenient port of customs entry and not to some distant port of entry, which causes the consignee additional trouble and unnecessary expense

Exports of Grape Fruit from Cuba

Exports of grape fruit from Cuba, exclusive of the Isle of Pines, for 1924 were valued at \$647,954, against \$593,459 for 1923 and \$732,296 in 1922.

Consolidated Railways of Cuba Dividend

Consolidated Railways of Cuba has declared a quarterly dividend of \$1.50 on its preferred stock payable October 1 to holders of record September 15.

The Cuban Flour Market

Cuba Imports Annually 1,000,000 Barrels of Flour, 85 Per Cent
of Which Comes from the United States—Gulf
Ports Lead in Shipments

J. A. LeClerc, Foodstuffs Division

Over 1,000,000 barrels of flour, valued at approximately \$8,000,000, are imported into Cuba annually. The annual imports before the war amounted to 1,202,000 barrels, all of which originated in the United States. The value of these imports was \$4,277,000.

CUBAN FLOUR IMPORTS LARGELY UNITED STATES PRODUCT

Before 1920 Cuba's imports of flour were practically all from the United States, less than 50,000 barrels of flour being imported from other countries. By 1922, however, Canada had obtained such a foothold in the Cuban market that 109,000 barrels of Canadian flour were imported. By 1923 the amount of Canadian flour imported by Cuba was 190,000 barrels, and in 1924, a somewhat lesser amount—178,000 barrels. During all these years, however, Cuba has consistently imported over 1,000,000 barrels of American flour each 12 months. In other words, fully 85 per cent of Cuba's flour consumption at the present time is the product of the flour mills of the United States.

Both hard and soft wheat flours are consumed in Cuba, the bakers of that country fully recognizing the peculiar advantages to be derived from the use of blends of flours of different characteristics. Fully one-half of the imports of flour into Cuba are landed at the port of Habana. Among the other ports of prominence are Santiago, Nuevitas, Caibarien, and Cienfuegos. While less than 14 per cent of the Cuban imports were of Canadian origin, it is of interest to note that nearly 30 per cent of the flour landed at Caibarien was Canadian.

According to trade information,¹ fully 90 per cent of the flour imported into Cuba is used by bakers (of which there are over 6,000 on the island) for bread making. Nearly 6 per cent of the flour goes into the manufacture of crackers and vermicelli, and a small amount is used by confectioners. The daily consumption of bread per capita is estimated at a trifle over one-fourth of a pound.

CUBAN FLOUR MARKET EXCEPTIONALLY STABLE

The exports of flour from the United States to Cuba during the year ended December 31, 1924, amounted to 1,187,185 barrels, or about 100,000 barrels more than were exported during the preceding year. During the year 1924 Canada exported 201,613 barrels of flour to Cuba, or nearly 34,000 barrels less than during the preceding year. (These figures are from Canadian export statistics, while the figures in the first paragraph refer to Cuban import statistics.)

The flour market of Cuba shows a remarkable constancy or stability. During the six-month periods from January, 1922, to December, 1924, the average exports of flour from the United States to Cuba per period were 561,113 barrels, the greatest variation from the average during any one of these periods being about 58,000 barrels. The average exports from Canada for the same periods were 107,648 barrels, the largest amount being 128,558 for the six months ended December 31, 1922.

¹ Northwestern Miller, March 4, 1925, p. 464.

GULF PORTS LEAD IN SHIPMENTS FROM UNITED STATES

Nearly one-third of the flour exported from the United States to Cuba during the past three years has been from the North Atlantic ports, principally New York and Baltimore, the other two-thirds being from the Gulf ports. The port of New Orleans alone has furnished an average of over 42 per cent of the total flour shipped from the United States to Cuba during these six periods of six months each. Of the shipments from the North Atlantic ports, New York supplied over 90 per cent.

Exports from New York and New Orleans, which together amount to over 70 per cent of the total, show a tendency to increase; those from Mobile, averaging about 20 per cent, show a gradual decline. During the past two fiscal years New Orleans has been the chief port of flour shipments to Cuba, with an average of 49.2 per cent of the total from the United States, followed by New York, with 30.1 per cent, and Mobile with 13.7 per cent. The average of the other ports is from 1 to 3 per cent each. During the calendar year 1924, New Orleans's share of the Cuban flour exports was 47.9 per cent; New York's 30 per cent; Mobile's, 15.1 per cent. Exports from the other ports were relatively small.

UNUSUAL RECORD INDICATED FOR 1924-25

Exports during the past 11 months (July to May, 1924-25) from all the ports of this country amounted to 1,139,066 barrels. If this rate be maintained for the next month, the total for the year will be a record breaker, viz., 1,230,000 barrels. On the other hand, the exports from Canada for the 11 months, July to May, amounted to 109,262 barrels or at the rate of 120,000 barrels for 12 months. These figures indicate that the United States will have shipped over 90 per cent of the total flour exported to Cuba from North America, a percentage appreciably greater than for any six-month period since January, 1922, indicating that the United States flour exporters are more than holding their own in the Cuban market.

Again, as during every six-month period since January, 1922, New Orleans has been the leading port of shipment. Over 58 per cent of all the flour exported from the United States during the past 11 months (July to May) went through that port; 27 per cent was shipped through New York, 3 per cent less than during the past fiscal year. Shipments from Mobile showed a marked falling off, while those from Baltimore, Florida, and Galveston were negligible. It follows, therefore, that New Orleans and New York are the ports of shipment for over four-fifths of the United States flour exported to Cuba.

CANADIAN SHARE OF CUBAN FLOUR TRADE

Much has been written about Canadian competition in Cuba. During the six months January to June, 1922, Canada shipped 80,165 barrels, or 13 per cent of the total North American exports to that island. The shipments from Canada to Cuba during the fiscal year 1923 amounted to 239,251 barrels, or 18 per cent of the total; and in 1924, to 247,328 barrels, or 18.2 per cent of the total from North America. Canada's greatest relative exports to Cuba were during the second half of 1922, when 19 per cent of the total North American flour shipments were attributed to Canada. Since that time Canadian exports to Cuba have shown a decreasing tendency, especially during the last six months of 1924 and the first five months of 1925. It may be of special interest to note (1) that the combined exports from New Orleans and Mobile during the past two years have averaged nearly four times the total Canadian shipments; (2) that New Orleans alone has during that period sent to Cuba more than three times as much flour as has Canada; (3) that the exports from New York alone have been 60 per cent greater than those from Canada. During the first five months of 1925 nearly four times as much flour was shipped to Cuba from New York as from Canada; New Orleans exported over nine times as much as did Canada.

FLOUR EXPORTS TO CUBA FROM UNITED STATES AND CANADA—(In barrels)

Periods of Six Months	New York	Baltimore	Florida	Mobile	New Orleans	Galveston
January-June, 1922.....	153,191	8,380	10,186	123,502	218,277	25,540
Per cent.....	28.3	1.5	1.7	22.7	40.3	4.7
July-December, 1922.....	177,801	21,354	9,687	119,267	206,884	2,870
Per cent.....	32.5	3.9	1.7	21.8	37.9	.5
January-June, 1923.....	163,587	5,369	14,943	97,806	222,273	36,389
Per cent.....	30.0	1.0	2.7	18.0	40.8	6.7
July-December, 1923.....	184,442	6,676	26,099	96,275	203,469	21,250
Per cent.....	33.8	1.2	4.8	17.8	37.3	3.9
January-June, 1924.....	185,215	17,075	7,533	97,838	242,834	2,400
Per cent.....	32.6	3.1	1.3	17.2	42.8	.4
July-December, 1924.....	170,194	6,401	9,772	81,344	326,164	1,667
Per cent.....	27.5	1.0	1.5	13.1	52.7	.2
Average per period, January, 1922, to December, 1924.....	172,405	10,877	13,037	102,672	236,644	15,019
Per cent.....	30.7	1.9	2.3	18.3	42.2	2.7
January-May, 1925 (5 months).....	137,796	306	2,544	31,781	335,393	—
July, 1924-May, 1925 (11 months).....	307,990	6,707	12,316	113,125	661,567	1,667
Per cent.....	27.0	.6	1.1	9.9	58.1	.1

Periods of Six Months	All Other	Total United States	Canada	Total United States and Canada	Per Cent of Total from United States
January-June, 1922.....	4,067	543,143	80,165	623,308	87.1
Per cent.....	.7	—	—	—	—
July-December, 1922.....	8,570	546,413	128,558	674,971	81.0
Per cent.....	1.6	—	—	—	—
January-June, 1923.....	4,131	544,498	110,693	655,191	83.1
Per cent.....	.7	—	—	—	—
July-December, 1923.....	7,228	545,439	124,858	670,297	81.3
Per cent.....	1.3	—	—	—	—
January-June, 1924.....	14,852	567,747	122,470	690,217	82.3
Per cent.....	2.7	—	—	—	—
July-December, 1924.....	23,896	619,438	79,143	698,581	88.7
Per cent.....	3.7	—	—	—	—
Average per period, January, 1922, to December, 1924.....	10,457	561,113	107,648	668,761	83.9
Per cent.....	1.8	—	—	—	—
January-May, 1925 (5 months).....	11,808	519,628	30,119	549,757	94.5
July, 1924-May, 1925 (11 months).....	35,704	1,139,066	109,262	1,248,328	91.2
Per cent.....	3.1	—	—	—	—

From the statistical evidence presented in the foregoing, the outlook is bright for a continued good market in Cuba for American flour.

STATUS OF UNITED STATES FLOUR UNDER COMMERCIAL TREATY

There is another phase of the Cuban flour market which merits some consideration. According to the present commercial treaty between the United States and Cuba, American flour enjoys a preferential of 30 per cent over that of Canadian flour, or of flour from any other country. The general duty on imports of flour into Cuba is \$1.30 per 100 kilos (220.4 pounds) or \$1.16 per barrel. The duty applicable to flour milled in the United States is 91 cents per 100 kilos (or approximately 81 cents per barrel). Flour made in American mills, whether from domestic or foreign wheat, is regarded as American flour and enjoys the 30 per cent preferential.

On September 1, 1924, there were 10 American mills operating in accordance with the provisions of the tariff act of 1922, by which it is permissible to import wheat, without the payment of duty, for manufacture into flour for exportation. It is incumbent that all of the identical flour produced from such bonded wheat be exported.

UNITED STATES EXPORTS OF FLOUR FROM BONDED AND DOMESTIC WHEAT

The following table shows (a) the estimated exports of flour made from Canadian wheat milled in bond; (b) flour milled from domestic wheat; and (c) the amount

of flour produced from duty-paid wheat, during each quarter since October, 1921, as well as the amount of flour exported to Cuba from New York, Canada, and from the United States as a whole.

UNITED STATES FLOUR¹ FROM BONDED AND DOMESTIC WHEAT

Quarters	Con- sumed in United States	Exported			Exported to Cuba—		
	From Im- ported Duty- Paid Wheat	Milled from Duty- Free Bonded Wheat	Milled from Domestic Wheat	Total from U. S., Canadian and Domestic Wheat	From United States	From New York Port	From Can- ada
1921:							
Fourth.....	643,906	486,706	3,329,749	3,816,455	(²)	(²)	(²)
1922:							
First.....	490,386	516,296	3,287,080	3,803,376	543,143	153,191	80,165
Second.....	594,373	368,739	2,895,507	3,264,246			
Third.....	558,572	543,309	2,847,439	3,390,748	546,413	177,801	128,558
Fourth.....	703,339	888,642	3,677,616	4,566,258			
Total.....	2,346,670	2,316,986	12,707,642	15,024,628	1,089,556	330,992	208,723
1923:							
First.....	232,257	333,770	3,635,504	3,969,274	544,498	163,587	110,693
Second.....	174,310	296,676	2,659,758	2,956,434			
Third.....	233,903	602,485	3,123,251	3,725,736	545,439	184,442	124,858
Fourth.....	1,343,919	986,755	4,671,657	5,658,412			
Total.....	1,984,389	2,219,686	14,090,170	16,309,856	1,089,937	348,029	235,551
1924:							
First.....	1,085,460	679,712	4,000,705	4,680,417	567,747	185,215	122,470
Second.....	399,700	821,011	2,367,301	3,188,312			
Third.....	9,523	348,929	2,852,192	3,201,121	619,438	170,194	79,143
Fourth.....	37,454	256,974	4,683,255	4,940,229			
Total.....	1,532,137	2,106,626	13,903,453	16,010,079	1,187,185	355,409	201,613
1925:							
First.....	9,333	389,333	2,924,202	3,313,535	335,288	90,634	23,632

¹On basis of 4.5 bushels of wheat per barrel.

²Not available.

It is possible that a small amount of flour made from Canadian wheat on which duty has been paid has been exported. In such case this would be included under the column "From domestic wheat;" referred to in the preceding table. According to expert trade opinion, however, there is very little flour exported from the duty-paid or "domesticated" Canadian wheat, as practically all such duty-paid wheat is milled into flour for home consumption.

It is quite fair to assume that most of the exports to Cuba of flour made from bonded wheat are shipped from the port of New York. Assuming (if such an assumption were possible) that all of the flour shipped to Cuba from the port of New York had been milled from Canadian wheat imported duty free, it is seen that the exports from New York to Cuba amount to less than 20 per cent of the total flour produced from bonded wheat and to less than one-third of the American flour exported to that island.

The Canadian millers, regarding such flour as a direct competitor of the flour milled in Canada, have on various occasions sought protection, suggesting that an export tax or duty be levied on wheat entering the United States for milling in bond. Following a recent official investigation by the Royal Grain Inquiry Commission such a tax was proposed. The recommendation; however, has thus far received no consideration by the Canadian Parliament.

Cuban Automotive Market

(The United States in 1924 exported to Cuba 7,914 passenger cars, 1,478 trucks, and 52 motor cycles, compared with 6,003,811, and 54 for the corresponding items in 1923.)

The automotive market is still affected by low sugar prices. In the field of low-priced cars, sales increased approximately 40 per cent over those of the first quarter, due entirely to the activities of one make. This increase was accounted for by the appearance of an improved model and improved sales outside of Havana, and not by improved market conditions. Sales of medium-priced cars were slightly less than in the preceding quarter; but sales of high-priced cars were particularly affected by the low sugar prices. In the truck field, vehicles of light weight had an appreciable increase in sales, amounting to at least 10 per cent over the previous quarter; this, in turn, was a great improvement over the preceding quarter. Heavy truck sales were satisfactory, following the almost complete clearing out of old stock which had been a drag on the market for some time. The accessories market was very dull, especially affected by the money shortage resulting from low sugar prices. However, this situation varied considerably in its effect on wholesale and retail sales, as the latter were still holding up fairly well. (Assistant Trade Commissioner O. R. Strackbein, Havana, June 10, 1925.)

Alcohol in Cuba

The production of industrial alcohol, both pure and as fuel, is becoming a very important Cuban industry. During 1921, 36,557,187 liters were manufactured; in 1922, the production of alcohol increased to about 50,000,000 liters, of which approximately 18,000,000 was converted into motor spirit. The alcohol industry comprises thirty-seven distilleries, representing a capital investment of more than \$25,000,000, largely Cuban.

National Sugar Refining Co. Dividend

The National Sugar Refining Company has declared the regular quarterly dividend of \$1.75, payable October 2 to stock of record September 14.

Cuba Best Market for Waterproof Clothing

Cuba offers the best market for waterproofed clothing, the exports to that country from the United States being valued at \$65,303 in 1922, \$197,407 in 1923, and \$244,515 in 1924. The annual rainfall of Cuba averages about 53 inches, and waterproof clothing, practically all of the lighter weight, is worn to a considerable extent. There is a limited manufacture of waterproof clothing in Cuba, especially for women and children. Exports of waterproofed auto cloth and rubberized fabrics to Cuba amounted to \$52,164 in 1922, \$61,599 in 1923, and \$62,430 in 1924.

Cuban Tobacco Exports

Cuban exports of tobacco through the port of Havana from January 1 through the middle of May, 1925, show a substantial increase over those for the same period of last year, according to a report to the Commerce Department. Leaf tobacco exports amounted to 14,393,591 pounds, compared with 11,040,328 pounds for the corresponding period of 1924; cigars, 36,027,249 in number compared with 25,991,751; and cigarettes, 585,176 boxes, compared with 284,965 boxes. The increase in exportations reflects the large volume of 1923-1924 crop.

Link-Belt Publishes New Book on Coal and Ashes Handling Methods

Link-Belt Company have just announced the publication of a new sixty-eight page book describing new methods for handling coal and ashes in boiler houses.

The book is beautifully illustrated; showing installations of the Peck Carrier in the boiler houses of many Public Buildings, such as the new Tribune Tower in Chicago, and in many industrial plants throughout the United States.

It also contains much data of interest to engineers and architects; and is of particular value to anyone interested in boiler houses and their equipment. The Peck Carrier is also used for handling cement, sand, ore and other materials.

A copy will be mailed upon request. Address Link-Belt Company, Chicago, Indianapolis or Philadelphia.

Traffic Receipts of Cuban Railroads

Earnings of United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending July 18.....	£59,298	£69,081
Week ending July 25.....	58,853	65,618
Week ending August 1.....	55,642	66,991
Week ending August 8.....	56,477	67,470
Week ending August 15.....	57,414	68,057

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending July 18.....	£12,537	£11,978
Week ending July 25.....	12,252	11,616
Week ending August 1.....	12,077	11,966
Week ending August 8.....	11,824	11,807
Week ending August 15.....	11,512	12,162

Havana Electric Railway, Light & Power Company

	MONTH OF JUNE		6 MONTHS TO JUNE 30TH	
	1925	1924	1925	1924
Operating Revenues.....	\$1,241,402	\$1,158,386	\$7,585,665	\$7,008,191
Operating Expenses and Taxes.....	683,968	586,608	3,882,546	3,565,350
Net Revenues.....	557,434	571,778	3,703,119	3,442,841
Other Income.....	32,892	28,398	205,562	169,785
Total Income.....	590,326	600,176	3,908,681	3,612,626
Interest Charges.....	89,181	90,789	538,034	548,497
INCOME, after deducting taxes and interest charges.....	501,145	509,387	3,370,647	3,064,129
Sinking Fund Requirements.....	23,826	22,440	163,172	155,501
Balance of Income.....	477,319	486,947	3,207,475	2,908,628

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	93	95
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	98 $\frac{1}{4}$	98 $\frac{1}{2}$
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	95	99
Republic of Cuba Exterior Loan 4 $\frac{1}{2}$ % Bonds of 1949.....	91 $\frac{5}{8}$	91 $\frac{3}{4}$
Havana City 1st Mtge. 6% Bonds.....	100	105
Havana City 2nd Mtge. 6% Bonds.....	90	100
Cuba Railroad Preferred Stock.....	83	87
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	87	88
Cuba Company 6% Debenture Bonds.....	83	88
Cuba Company 7% Cumulative Preferred Stock.....	85	95
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	94 $\frac{3}{4}$	96 $\frac{7}{8}$
Havana Electric Railway, Light & Power Co. Preferred Stock.....	112 $\frac{1}{2}$	115
Havana Electric Railway, Light & Power Co. Common Stock.....	219	223
Cuban-American Sugar Co. Preferred Stock.....	96	98
Cuban-American Sugar Co. Common Stock.....	24	24 $\frac{1}{2}$

The Sugar Industry

The Beet Sugar Industry in Western Canada

By J. W. Evans

Seven thousand acres of prairie soil covered by the spreading tops of as promising a lot of sugar beets as one could wish to see testify to the successful come-back of the sugar beet in Western Canada. This is the second stage of the industry here. Its first chapter was written nearly a quarter of a century ago, in 1901.

UTAH MEN PIONEER DEVELOPERS

At that time the idea of establishing a sugar beet factory in southern Alberta was conceived in the minds of two Utah men—Jesse Knight, one of the foremost mining men of the state, and John W. Taylor of Salt Lake City, an apostle of the Mormon Church. They had seen the sugar beet in a single decade transform the methods of farming in Utah and become one of the leading industries of the Intermountain region and they believed it would do the same for Alberta.

They were satisfied that the rich prairie soil would produce fine crops of sugar beets, but to make sure that climatic and soil conditions were suitable test plots were planted on various farms from Cardston in the west to Stirling in the east. The results were encouraging beyond their expectations, both in the tonnage and quality of the beets grown. The samples sent to Utah to be analyzed showed 20 per cent sucrose and 89 per cent purity.

Satisfied by this demonstration of the ability of Alberta lands to produce high grade sugar beets, Mr. Knight proceeded with the erection of a factory of 350 tons daily slicing capacity, which at that time he was able to erect at a cost of about \$500,000, including the expense of preparing 3,000 acres of land for beets. The factory was completed in 1903 and sliced its first beets in the fall of that year. For twelve successive seasons beets were grown here, the total quantity handled by the factory reaching 120,000 tons from which was manufactured 30,000,000 pounds of sugar.

FARMERS THEN UNAPPRECIATIVE

The one obstacle to the success of the Knight sugar factory was the difficulty of obtaining a sufficient supply of beets to provide a capacity run for the plant. Lack of sufficient raw material to assure profitable operation finally discouraged the officials of the sugar company and they decided to close the plant and remove it to another location.

When the farmers and local business men realized that the industry was about to be lost to them they awoke from their former apathy toward it. Pledges of support and promises of increased acreage were made, but by that time arrangements for the transfer of the factory had been made and in 1916 it was removed to Cornish, Utah.

The value of sugar production to the agricultural and industrial life of the community had impressed itself upon the people, however, and something over two years ago the Raymond Board of Trade began a campaign for the re-establishment of the industry here. Delegates were sent to the provincial government with a proposal that involved a government guarantee, but this proposal was rejected. The next move resulted in getting the Utah-Idaho Sugar Company interested. Again test plots were planted and results were as favorable as before. The tonnage ranged from 11 to 20 tons per acre, with sucrose content of 17 to 20 per cent and purity between 80 and 90 per cent.

ACREAGE QUICKLY PLEDGED

When the sugar company was satisfied of the ability of the district to produce satisfactory crops of beets it made a proposal that if the farmers of southern Alberta would prepare 6,000 acres of irrigated lands during 1924 for planting to beets the company would erect a factory and have it ready to handle the crop in the fall of 1925. Meetings were held in the various districts, and the 6,000 acres were quickly pledged

and most of it was prepared by cultivation and irrigation for the promised crop. In the spring of 1925 over 7,000 acres were planted, most of which is being carried forward to harvest. The condition of the crop is excellent and promises a yield of from 10 to 20 tons per acre.

Meanwhile the million dollar plant promised by the Utah-Idaho Sugar Company is now taking shape on the site selected just outside the town of Raymond.

At the present writing the construction work is 75 per cent completed, and local company officials say that the factory will be ready for its test run by September 10, which will give plenty of time for the necessary "tuning up" operations before the serious work of handling the beet harvest begins.

PLANT EQUIPMENT

Except for the beet conveyor system, the factory is largely equipped with machinery from one of the factories owned by the Utah-Idaho company in the state of Washington, which have been dismantled to equip the Raymond plant and that under construction at Chinook, Montana. These factories were of the most modern design at the time of their erection, a few years ago, and the equipment is of approved up-to-date type.

The beet conveyor system adopted at Raymond comprises both car unloading hoppers and wagon units. All beets, whether received by car or wagon, will be transferred to storage on 42-inch rubber conveying belts, driven by electric motors.

That southern Alberta is well adapted to sugar beet growing is evidenced by the splendid condition of the crop now approaching maturity and the profitable expansion of the industry in western Canada seems assured. It was with such development in mind that the Utah-Idaho Sugar Company adopted the name Canadian Sugar Factories, Ltd., for its Canadian subsidiary. With the irrigation districts now organized in southern Alberta, comprising approximately a million acres of irrigable land there exist ample room and favorable conditions for the establishment of several sugar factories, and these are certain to come to this favored land of rich soil, bright sunshine, and abundant water.—*Facts About Sugar.*

Cuban-Dominican's Output

For the first season of its operations on the expanded basis provided by the acquisition of additional properties last year, the Cuban-Dominican Sugar Company shows a production for its twelve mills in the 1924-25 campaign of 2,314,411 bags of sugar, or about three times its 1923-24 output. In that season, operating only five centrals, the company produced 818,083 bags, while in 1922-23 the outturn was 587,694 bags.

In the campaign just ended the five original estates produced 1,028,746 bags, or 210,000 bags more than in 1923-24. The total outturn of 2,314,411 bags compares with 2,002,563 bags made by the same twelve mills in 1923-24 and 1,695,030 bags in 1922-23. Production this year of the seven properties acquired in 1924 showed an increase of roundly 100,000 bags.

The 1924-25 and 1923-24 outturn figures by mills are as follows, in bags:

Central	1924-25	1923-4
Alto Cedro.....	249,327	*222,708.
Altagracia.....	152,622	*164,171
America.....	202,182	*191,613
Cupey.....	187,532	*144,434
Hatillo.....	136,316	106,360
Palma.....	303,328	*304,823
Santa Ana.....	125,150	91,591
Cuban mills.....	1,356,456	1,225,700
Barahona.....	232,820	203,464
Consuelo.....	410,982	307,444
Las Pajas.....	70,272	*48,252
Quisqueya.....	120,403	*108,479
San Isidro.....	123,478	109,224
Dominican mills.....	957,955	776,863
Total.....	2,314,411	2,002,563

*Not under ownership of company in 1923-24.

A cane acreage sufficient to produce 2,600,000 bags of sugar in the 1925-26 campaign is planted. The total combined daily grinding capacity of the twelve mills is 26,900 tons of cane, which rate can be maintained hereafter without any large capital expenditures except for railroad extensions and equipment.

Value of Export Sugar

The total value of sugar exported in the six months ending June 30 was \$11,485,975, against \$13,716,966 for the corresponding period last year.

Exports of Refined Sugar for Half-Year

Chiefly as a result of the maintained demand for sugar from the British Isles, export trade in refined sugar from the United States showed increase in June. Exports for the month, according to the government's trade returns, were 38,863 short tons (34,699 long tons), an increase of 2,734 tons over the May figures, and 13,855 tons more than were exported in June, last year.

For the half year ending June 30 exports of refined amounted to 145,443 short tons (129,859 long tons) or roundly 30,000 tons more than the total for the corresponding semester of 1924, though below the levels of preceding years since the war. The comparative figures of exports by months this year and last are in tons of 2,000 pounds as follows:

Month	1925	1924
January.....	7,903	3,919
February.....	15,801	8,043
March.....	24,029	16,143
April.....	22,718	28,383
May.....	36,129	33,662
June.....	38,863	25,008
TOTAL, 6 months.....	145,443	115,158

The principal feature of the June movement was the further increase recorded in exports to the United Kingdom and the Irish Free State, amounting to 7,200 tons more than in May and more than offsetting a net decrease of roundly 4,500 tons in exports to other quarters of the world.

The figures of exports by countries of destination for June and the first half of 1925 are as follows in detail, in tons of 2,000 pounds:

To	June	Jan.-June
Great Britain.....	25,270	64,437
Irish Free State.....	2,667	4,319
France.....	1,876	6,174
Greece.....	968	5,405
Norway.....	2,366	5,189
Other Europe.....	848	5,999
Canada.....	378	2,609
Newfoundland.....	159	2,484
Panama.....	33	1,784
Other North America.....	181	1,527
British West Indies.....	94	988
Cuba.....	125	798
Other West Indies.....	112	1,156
Argentina.....	332	15,479
Uruguay.....	1,106	15,740
Bolivia.....	906	4,165
Chile.....	606	2,039
Other South America.....	3	587
British West Africa.....	271	831

To	June	Jan.-June
Spanish Africa.....	151	638
Algeria.....	133	502
Other Africa.....	112	1,322
Palestine.....	56	1,052
Other Asia and Oceania.....	110	219
Total.....	38,863	145,443

European Production

An increase in the acreage sown to sugar beets for the production of sugar, is reported for both Germany and Czechoslovakia, while Denmark's acreage shows a decrease, according to cable reports of the International Institute of Agriculture at Rome. The increase in Germany amounts to 4 per cent over last year's acreage, which is reported by the German Sugar Association as 876,000 acres sown for the sugar factories. Czechoslovakia shows an increase of 1.4 per cent over the 1924 acreage, which is officially estimated at 748,000 acres, while the decrease in Denmark is reported to be 3 per cent below last year's acreage officially reported at 95,000 acres.

Low Sugar Prices Decreased Value of Cuban Trade

According to Commerce Reports the largest decline in imports occurred in our trade with Cuba, amounting to \$67,904,212. That lower sugar prices were responsible is clear from the following figures of our sugar imports from that island: Fiscal year 1923-24, imports 6,515,263,383 pounds, valued at \$313,612,255; 1924-25, imports, 7,716,371,154 pounds, valued at \$234,808,888—an increase of 1,201,107,771 pounds imported, but a decrease of \$78,803,367 in the value of imports.

Guadeloupe Has Large Crop

The sugar crop of Guadeloupe is larger than usual this year, and grinding operations for the campaign of 1924-25 are expected to extend through the first half of August, according to a report of Trade Commissioner H. P. Macgowan. The crop is estimated at about 35,000 tons of sugar, practically all of which will be exported to France. Economic conditions in the island are reported to be generally good.

Cane Damage by Mosaic

The experiment station at Santiago de las Vegas has issued a circular (No. 61) by Stephen C. Bruner, entitled, "Damage Caused to Sugar Cane by Mosaic." The paper is a description of an experiment conducted at the station on plots of equal size with mosaic-infected and healthy cane. Two plots were laid out, separated by a barrier 110 meters in width planted to Cayana 10 and Uba. Five hundred healthy cuttings were planted at one end, and an equal number of cuttings from mosaic-infected plants on the other side of the barrier. The soil in the two plots was typical light red and apparently almost identical, as shown by chemical analysis and by growth of the immune canes planted in the barrier. Both plots were planted on December 18, 1923, and received identical care and treatment to date of harvest. Cutting began on March 14, 1925, when the cane was not quite 15 months old, and while the healthy plot was cut several days later than the other, weather conditions during the intervening days would not promote much growth.

The following results were secured:

	Healthy plot	Mosaic plot
No. plants, total.....	484	456
No. canes, total.....	3,303	2,624
Canes per stool.....	6.8	5.7
No. new shoots, total..	1,104	1,441
New shoots per stool...	2.28	3.16
Weight of cane, total lbs.	12,173.5	4,509.50
Weight of cane, per stool	25.15	9.89
Weight of cane, per cane	3.68	1.72
Weight of leaves, total lbs.....	2,140.25	1,754.75
Yield, arrobas per caballeria.....	104,565.5	38,734.80
Yield, short tons per acre	38.16	14.58

In comparing the returns per unit of area, it will be seen that a loss of 62.9 per cent was sustained by the mosaic-infected plants. The individual cane attacked by mosaic was 53 per cent below the weight of the healthy canes.

Comparative analyses of the juices from the two lots gave the following results:

	Healthy	Mosaic
Brix.....	17.78	17.15
Sucrose.....	15.41	15.02
Purity.....	86.66	87.25
Glucose.....	1.00	0.85

These figures are, however, influenced by one factor which has not been reported in the circular—the healthy cane was about 75 per cent infested by borers, while the other lot practically had none. Comparative analyses of the juices from canes in the healthy lot, gave the following results:

	Borer infested	Borer free
Brix.....	17.85	19.41
Sucrose.....	14.93	17.03
Purity.....	83.62	87.63
Glucose.....	.95	.76

Viewed in the light of these samples the borer, rather than mosaic, seems to be the cause of the lower purity of the healthy cane.

The article takes up in some detail the question of recovery of infected plants and finds no evidence from the experiment to make such a supposition tenable. On June 6, 1924, the mosaic plot contained four healthy stools, and nine with some of the canes healthy. An examination on June 19, 1925, three months after harvesting the experiment, showed two healthy plants and four with some healthy shoots.

Copies of the circular, which is, of course, printed in Spanish, can be obtained from the Estacion Experimental Agronomica, Santiago de las Vegas, Provincia de Habana, Cuba.—*Facts About Sugar.*

Fajardo to Expand

It is reported that the Fajardo Sugar Company of Porto Rico is negotiating for the purchase of Central Canovanas of the Loiza Sugar Company, which is located near Fajardo in the northeastern district of Porto Rico. Canovanas has steadily increased its production in the past few years and is reported to have made over 20,000 tons in the campaign just closed. It is understood that the Loiza Sugar Company controls lands adjoining those of Fajardo that will enable that company to increase its acreage. Fajardo's output was about 54,000 tons this season, so that the combined properties should have a production of about 80,000 tons.

An examination of the Loiza Sugar Company's properties is now being made, and if the report based upon it proves satisfactory the deal probably will be closed.

Fighting Pests by Aircraft

Recent reports from the Philippines tell of successful demonstrations of the control of locusts by army aviators dusting arsenate of lead from airplanes. Great clouds of locusts settle down on fields of sugar cane and soon destroy many acres. To stop this damage airplane "dusting" offered the only way whereby large areas could be effectively and rapidly covered with a quick-acting insecticide. This method of controlling crop pests was originated in the southern United States as a means of combatting the boll weevil and has been applied successfully in fighting various pests that cannot be reached and overcome in any other way.

In dusting crops the airplane flies within 20 feet of the ground, covering with dust (fungicide or insecticide) a swath 80 to 100 feet wide. The dust is fed into a hopper and out into the blast from the propeller. The propeller "slipstream" carries the powder back from the plane, where it meets the down-wash from the wings of the airplane and is driven to the ground. As the powder leaves the hopper through the "venturi" the friction engendered charges it with electricity opposite to that carried by the plants so that when they are covered by the powder, it sticks to them.

The finer the dust, the more thorough the application and the less it is necessary to use, so that it has been necessary to devise some means of atomizing the powder. Detailed in 1923 by the War Department to help develop plants and apparatus for dusting at Tallulah, La., Alan L. Morse, aeronautical engineer, now of the Morse Agricultural Service, became interested in airplane dusting and has recently designed and built a quick-detachable, atomizing dusting hopper, which uses about 20 per cent less powder than other hoppers. The atomizing is accomplished by driving the powder through holes the size of a pin by means of compressed air from a compressor pump driven by a windmill. A single plane will dust from 1,000 to 2,000 acres per day at a moderate cost. Inasmuch as it does not pay planters to invest in the costly equipment required for this service, the Morse Agricultural Service has arranged to do dusting for planters, supplying dust, airplanes, personnel, and supervision. A demonstration of airplane dusting was given at Pemberton, N. J., August 26, at 10 A.M.

New Cane Variety Yields

Reports received from the 1924-25 Porto Rico sugar crop indicate the great value of two new leading varieties of cane which are now being propagated in Cuba. The following figures are taken from the records of one estate whose average yield was over 40 tons per acre.

PRODUCTION OF REPRESENTATIVE FIELDS

Class of Cane	Variety	Tons per acre	Tons 96°	
			Sucrose in cane per cent	sugar per acre
Gran	S.C.12/4	58.17	14.30	7.83
	Cultura..B.H.10-12	64.27	13.89	8.38
	Mixed	47.07	13.26	5.88
Primavera.	S.C.12/4	41.75	15.01	5.94
	B.H.10-12	39.21	14.89	5.52
	Mixed	26.76	13.01	3.56
Ratoons...	S.C.12/4	30.53	14.49	4.17
	B.H.10-12	31.34	14.60	4.32
	Mixed	20.54	13.95	2.70

These data show the results of using good cultural methods for sugar cane and point the way for practical results on the older lands of Cuba.

Porto Rico's Sugar Crop

According to a report issued by Commissioner of Agriculture Carlos E. Chardon, Porto Rico has just completed the greatest sugar crop in the history of the island. The total output of the forty mills grinding during the past campaign amounts to 632,000 short tons, or 564,285 tons of 2,240 pounds. This is fully 100,000 tons above the estimate of the crop prepared last November and is 61,000 tons in excess of the largest previous crop, which was made in 1916-17.

The record breaking output of the past season was due to the exceptionally favorable weather that prevailed throughout the growing and harvesting season and to the fact that extensive plantings of new and disease resistant types of cane that have been introduced within the past few seasons have now come into bearing. The vigorous campaign against mosaic and other diseases that was started a few years ago, and that led to a careful study of cane varieties adapted to local conditions, has worked a wonderful improvement in yield as is shown by the results of the campaign just ended.

Practically every mill in Porto Rico exceeded its early estimate of production and

in some cases the output was more than double the estimated quantity. Many estates report yields of 35 to 45 tons of cane per acre.

The following table shows the production of the past ten years in long and short tons:

Year	Tons of 2,000 Pounds	Tons of 2,240 Pounds
1924-25.....	632,000	564,285
1923-24.....	447,587	399,631
1922-23.....	379,071	338,456
1921-22.....	408,325	364,598
1920-21.....	491,114	438,494
1919-20.....	485,887	433,827
1918-19.....	406,003	362,500
1917-18.....	453,796	405,175
1916-17.....	504,082	450,073
1915-16.....	483,097	431,336

The weather continues highly favorable to the growing crop, which is in a very flourishing condition. From present indications production during the coming season will be nearly or quite as large as in the campaign just ended.

Sugar Imports to End of June

The import movement of sugar into the United States continued during June to run ahead of the 1924 and 1923 movement, according to official trade returns for the month which show imports of 432,870 short tons (386,491 long tons) against 365,952 tons imported in June, last year, and 347,107 tons in June, 1923. The total was only a little below that of May, when 455,252 tons were imported. The month's total was made up of 365,377 short tons from Cuba, 64,839 tons of Philippine duty free sugars and 1,132 tons from the Virgin Islands, and 1,522 tons of full duty paying sugars from various countries.

Import supplies for the first half of 1925 of 2,657,572 tons (2,372,832 long tons) are roundly a little more than 200,000 short tons larger than those of the corresponding period of 1924, and more than 100,000 tons in excess of those for 1923. The comparative figures, in tons of 2,000 pounds, are:

	1925	1924	1923
Cuban.....	2,353,888	2,182,827	2,356,862
Duty free....	267,015	220,644	143,103
Full duty....	36,669	47,587	46,081
Total.....	2,657,572	2,451,058	2,546,046

The 267,015 tons of duty free sugars imported up to June 30 this year comprised 264,525 tons from the Philippines and 2,491 from the Virgin Islands.

Full duty paying sugars in June consisted almost exclusively of Central American. Receipts from this quarter were 1,471 tons, from Mexico 42 tons, and from other countries, 9 tons. The total of 36,669 tons of full duty sugars imported during the half year came from the following sources:

Mexico, 13,982 tons; Nicaragua, 6,979; Guatemala, 3,736; Salvador, 2,240; Honduras, 795; Peru, 1,050; Java, 7,538; Hong kong, 158; Canada, 53; Belgium, 55; Netherlands, 53; Hungary, 23; other countries, 7.

The distribution by ports of receipt of sugars imported in June and during the six months ending June 30 was as follows, in tons of 2,000 pounds:

At	June	Jan.-June
New York.....	165,640	907,970
Philadelphia.....	104,055	592,886
Boston.....	22,645	180,298
Baltimore.....	17,442	131,572
Savannah.....	21,384	114,377
New Orleans.....	73,545	449,247
Galveston.....	20,777	172,007
San Francisco.....	5,593	82,085
Other ports.....	1,789	27,130
Total.....	432,870	2,657,572

Cuban-Am. Dividend

At the meeting of directors of the Cuban American Sugar Company on August 19 quarterly dividends of \$1.75 on the preferred shares and 50 cents on the common shares were declared, payable September 30 to stock of record September 3. In connection with the reduction of the common dividend from 75 cents to 50 cents the following statement was issued:

"The depressed condition of the sugar market during the greater part of the current year and the uncertain outlook for the future price of sugar make a conservative dividend policy advisable at this time."

Sugar Review

Specially written for the THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated July 21, 1925. From that time until the end of July the market remained at a deadlock at $2\frac{1}{2}$ c. & f., with Cuban holders declining to sell at this figure and refiners declining to pay any more than this quotation. For a time, sellers of duty free sugars, Porto Ricos and Philippines, supplied refiners' wants, but after a time these sugars were not sufficient and refiners were compelled to go to Cuba in order to obtain sufficient supplies as, in the meantime, their supplies of raw sugar at the refineries had decreased to small figures.

During August, these latter conditions have continued and the market advanced to $2\frac{3}{4}$ c. & f., at which a very large business was done, practically all the refiners in Eastern United States participating as buyers, and it would not be surprising to learn that fully 100,000 tons of sugar were disposed of at this latter figure. After these transactions, there was a period of quietness and somewhat easier conditions obtained, chiefly influenced by holders of sugars in New York warehouses. A large part of the stock of Cubas held in warehouse against future deliveries on the Exchange were held against September delivery, and this caused some liquidation in the price of September delivery and allowed quite free sales of Cubas from warehouse, over 45,000 tons being disposed of to refiners over a period of about two weeks.

It was well for refiners that these sugars were available, as the weekly exports from Cuba, for over a period of three weeks, were comparatively small, being much less than required for meltings, so the availability of the stored sugars helped out refiners quite considerably. The market at this writing has again showed a tendency to improve, there being no sugars available at less than $2\frac{5}{8}$ c. & f. While refiners are hoping to get offers at reduced prices, there is no sign of weakness on the part of holders.

Advices from Europe state that the beet crop is growing under favorable conditions, but it is too early yet to give any figure of value as to the outturn. The beet crop of Europe comes to harvest in late September-early October.

The United States beet crop will be much less than that of last year, our preliminary figure indicating an outturn of 825,000 tons, and while conditions in the eastern part of the country are excellent, with abundant rainfall, there are other States west of the Mississippi River where the growing conditions are not so good. If conditions do not improve, there may be some doubt of the outturn equalling 825,000 tons. However, on the other hand, Louisiana advises that their crop is going along under very favorable conditions and indicates at present a figure of about 225,000 tons, compared with last year's practical failure of 79,000 tons, total outturn.

Advices from Java report an increased yield in the cane of the crop now being harvested and the estimate has been increased to 2,200,000 tons.

The United Kingdom and Continent have continued interested in Cubas and with every concession in price have appeared to take Cuban sugars for shipment to European ports. One prominent sugar concern in London, states that from now to the end of the year, the United Kingdom's wants will be 150,000 tons of Cuban sugars, in addition to what they have already taken.

REFINED.—When the raw market was steady at $2\frac{1}{2}$ c. & f., the refined trade seemed to maintain the same attitude and bought only on a hand-to-mouth basis. During this time, owing to the slow demand for refined, competition became very keen between refiners, and prices declined to 5.25c, less 2 per cent. This price seemed to appeal to the country and a demand was commenced to be felt. It started slowly at first, but gradually increased in volume. Refiners then advanced their prices to 5.35c, but this figure did not seem to check the demand to any extent, and it was not until 5.45c and 5.50c were touched that the refined buyers slowed up in their purchases. At this writing, however, as most of the refined buyers have run out of contracts placed at the lower prices previously, they are commencing to show interest at 5.45c and 5.50c.

New York, N. Y., August 18, 1925.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 21 de julio de 1925, y desde esa fecha hasta el fin de julio el mercado permaneció estacionario a 2½c costo y flete, con los tenedores cubanos rehusando vender á este precio y los refinadores rehusando pagar más que esta cotización. Por algún tiempo, los vendedores de azúcar libre de derechos, azúcar de Puerto Rico y las Filipinas, surtieron las necesidades de los refinadores, pero después de algún tiempo estos azúcares no eran lo suficiente y los refinadores se vieron obligados a ir a Cuba para conseguir existencias suficientes, pues entretanto sus existencias de azúcar cruda en las refinerías habían disminuido a una pequeña cantidad.

Durante agosto ha continuado este estado antedicho y el mercado subió a 2½c costo y flete, á cuyo precio se hicieron grandes transacciones, prácticamente todos los refinadores en la parte oriental de los Estados Unidos participando como compradores, y no sería extraño el saber que se dispuso de 100,000 toneladas de azúcar á la cotización anterior. Después de estas transacciones hubo un período de quietud y se consiguieron condiciones algo mejores. influenciado principalmente por tenedores de azúcar en los almacenes de Nueva York. Una gran parte de las existencias de azúcar de Cuba retenidas en almacenes contra futuras entregas en la Bolsa fueron retenidas contra entregas en septiembre, y esto causó alguna liquidación en el precio de entregas en septiembre y permitió bastantes ventas de azúcar de Cuba de los almacenes, disponiéndose de más de 45,000 toneladas a los refinadores en un período de dos semanas aproximadamente.

Fué buena cosa para los refinadores que estos azúcares estaban disponibles, pues las exportaciones semanales de Cuba, durante un período de tres semanas, fueron comparativamente pequeñas, siendo mucho menos de lo requerido para la elaboración, así as que el poder hacer uso de los azúcares almacenados ayudó á los refinadores considerablemente. El mercado al escribir esta reseña ha vuelto á mostrar tendencia á mejorar, no habiendo azúcar disponible á menos de 2½c costo y flete. Mientras que los refinadores están esperando obtener ofertas á precios reducidos, no hay indicio de flojedad de parte de los tenedores de azúcar.

Noticias de Europa manifiestan que la cosecha de remolacha está creciendo bajo condiciones favorables, pero es aún demasiado pronto para poder dar cifras acerca de la producción. La cosecha de remolacha de Europa se recolecta a últimos de septiembre y principios de octubre.

La cosecha de remolacha en los Estados Unidos será mucho menor que la del año pasado, nuestras cifras preliminares indicando una producción de 825,000 toneladas, y aunque las condiciones en la parte oriental del país son excelentes, con abundancia de lluvia, hay otros estados al oeste del Río Mississippi donde las condiciones para el crecimiento no son tan buenas. Si no mejoran las condiciones, puede haber alguna duda acerca de que la producción llegue a 825,000 toneladas. Por otra parte, sin embargo, noticias de la Luisiana manifiestan que su cosecha continúa bajo condiciones muy favorables é indica al presente una cifra de unas 225,000 toneladas, comparado con el fracaso del año pasado de 79,000 toneladas, producción total.

Noticias de Java reseñan un aumento en el rendimiento de la cosecha de caña ahora recolectándose, y el cálculo se ha aumentado a 2,200,000 toneladas.

La Gran Bretaña y el Continente europeo han continuado interesados en el azúcar de Cuba y con toda concesión en el precio parecen haber tomado azúcares de Cuba para embarcar á puertos de Europa. Una casa prominente en el negocio de azúcar en Londres comunica que desde ahora hasta fin de año las necesidades de la Gran Bretaña serán 150,000 toneladas de azúcar de Cuba, además de lo que ya han tomado.

REFINADO.—Cuando el mercado de azúcar crudo estaba constante a 2½c costo y flete, el comercio de azúcar refinado pareció mantener la misma actitud y compró solamente lo más necesario. Durante este tiempo, debido á la poca demanda por el refinado, la competencia entre los refinadores se hizo muy aguda y los precios bajaron á 5.25c menos 2%. Este precio pareció agrandar al país y empezó a sentirse una demanda. Empezó despacio

al principio, pero poco a poco aumentó en volumen. Los refinadores aumentaron entonces sus precios á 5.35c, pero este precio no pareció contener la demanda en modo alguno, y hasta que los precios llegaron á 5.45c. y 5.50c. no empezaron á disminuir sus ordenes los compradores de azúcar refinado. Sin embargo, al escribir esta reseña, como la mayor parte de los compradores de azúcar refinado han terminado sus contratos llevados a cabo a los precios más bajos anteriores, están empezando á mostrar interés á las cotizaciones de 5.45c. y 5.50c.

Nueva York, agosto 18 de 1925.

Sugar Manual Issued

NEW 1925 EDITION COVERS 90 SUGAR COMPANIES—DESCRIBES HAWAIIAN SUGAR INDUSTRY—CUBAN CROP AND OTHER STATISTICS

The sixth annual edition of their Manual of Sugar Companies has just been published by Farr & Co., members of New York Stock Exchange, and specialists in sugar securities. The 1925 booklet contains 66 pages of useful statistical information, covering 90 sugar producing and refining companies. A list of Cuban sugar mills, with individual output for the past 4 years (including the record Cuban Sugar Crop of 1924-25), is included: also, a brief description of the Hawaiian sugar industry, with 20 year production record and a comparative 5 year table of results for 8 representative Hawaiian companies. In addition, there are tables showing American and European beet sugar production: average per pound manufactur-

ing costs for beet sugar in the United States and cane sugar in Cuba, Hawaii and Porto Rico: last crop figures by larger mills in Porto Rico, and other statistical and informative matter relating to the sugar industry in general. The booklet is distributed free on application to Farr & Co., 90 Wall St., New York City.

Santa Lucia to Electrify

It is reported that Central Santa Lucia has let a contract to Victor G. Mendoza & Company for electrification of all departments of the factory with the exception of the mills. In view of the fact that grinding will continue until about September 15, the dead season will last only about three months and contractors are planning to rush the improvements. The Petree process is also to be installed.

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A Map of Cuba

Showing the location of all the active sugar plantations, engraved in colors on a high grade paper, with printed addendum giving sugar statistics to and including 1921-1922 production. Size 16 x 37 $\frac{5}{8}$. Price 50c. postpaid.

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(Revised to April 1, 1924)

T. P. MASON,
General Manager

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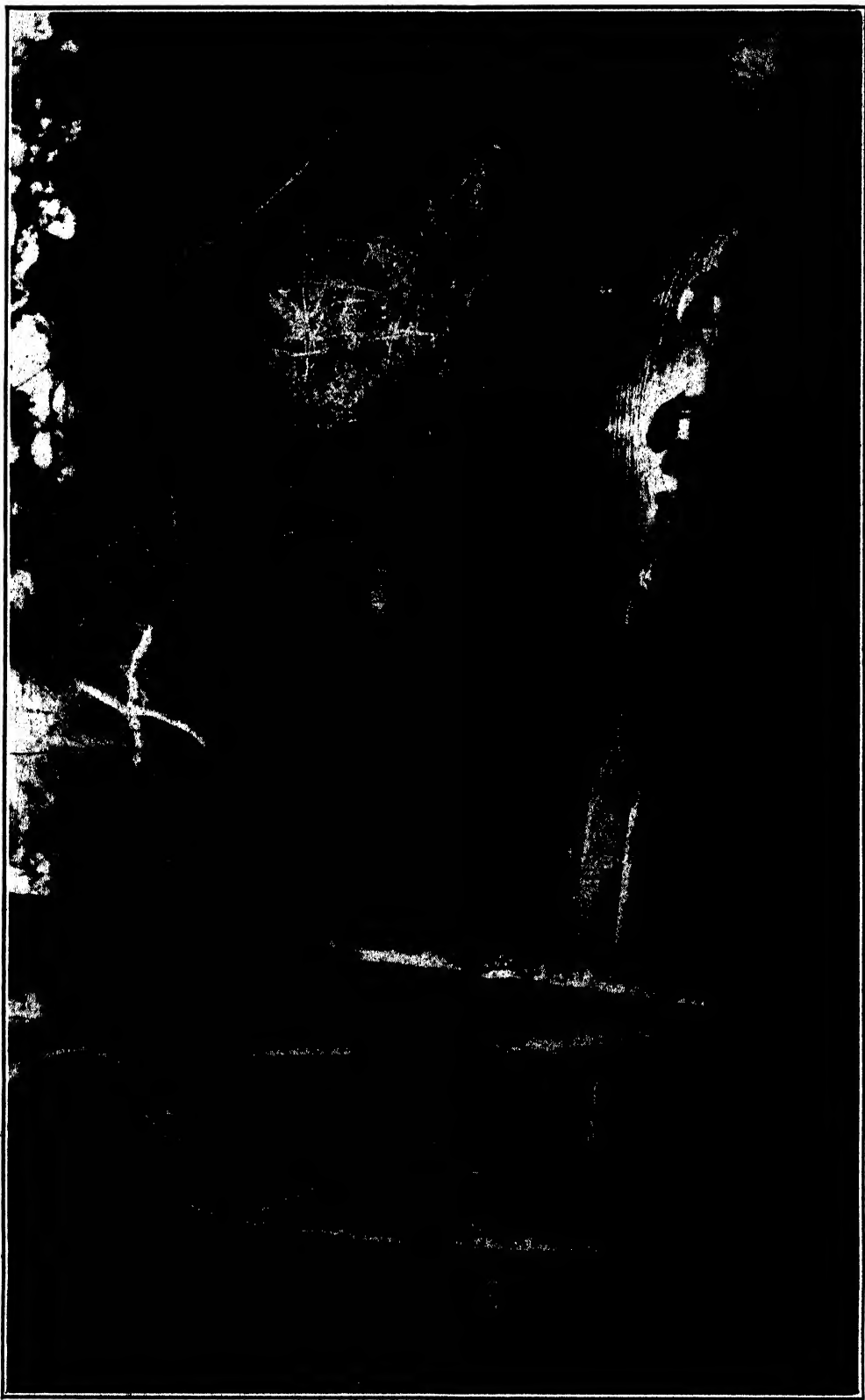
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Cuban Country Scene

THE CUBA REVIEW

"ALL ABOUT CUBA"

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VOLUME XXIII

October, 1925

NUMBER 11

Cuban Government Matters

Creation of Department of Communications for Cuba

A department of communications was created by the Government of Cuba by a law signed July 2. The new department will be charged with the administration of posts and telegraphs and the regulation of railway, maritime and aerial lines. The department comprises a secretary, a sub-secretary, director of posts, and director of telegraphs, with appropriate personnel.

Among other duties, the Secretary of Communications is made president of the railroad commission and is specially charged with all matters relative to the regulation of railroads, except technical matters, and those relating to public and private land. Jose Maria Espinosa has been appointed secretary and Juan Clemente Zamora, former Director General of Communications, has been appointed subsecretary of the new department.

A translation of the law creating the department of communications may be obtained from the Transportation Division or through the district and cooperative offices of the Bureau of Foreign and Domestic Commerce by requesting Report No. 182182.—Enoch H. Crowder, American Ambassador, Habana.

Contracting Under the Cuban Public Works Law

All work to be undertaken under the Cuban public works law is open to all contractors, native or foreign. Bids and specifications must be submitted, and the regular system provided for the awarding of all these public contracts will govern the contracts under this law. The most important of these works, such as the central highway, which will run through the six Provinces, construction of aqueducts for those cities which have none, schoolhouses, and sewerage in some of the larger cities, will be undertaken so as to be finished within four years.

CUBAN COURTS TO SETTLE DIFFERENCES— SECURITY.

All contractors must submit their differences for settlement to the courts of Cuba, without in any case alleging that they are foreigners, if such, and without making any claims before the Cuban Government other than through its courts.

In order to obtain a contract under this law, construction enterprises must present sealed bids. The award will be made to the responsible bona fide bidder whose proposition as to prices, materials, services and time of execution is most advantageous to the State, except when the awarding official elects to exercise the right to reject all proposals for reasons which under

the law governing these matters allow him so to do. The Government, on the other hand, is protected from default on the part of the contractor by making him furnish a bond for faithful performance of his contract.—*Ambassador Enoch H. Crowder, Habana.*

Cuba Plans to Advance Tariff on Chemicals

On August 5, the Department of Commerce served notice to American chemical manufacturers doing business in Cuba that the time is getting short for the filing of protests against greatly increased duties on such products, particularly pharmaceutical and toilet preparations, which are proposed under a revision of the Cuban tariff. For some time past a revision of the Cuban tariff has been under consideration. The text of the proposed revision as prepared by the Tariff Commission of the National Federation of Economic Corporations, a semi-official body somewhat analogous to the United States Chamber of Commerce, has recently been issued at Havana. The basic principles of the revision are declared to be protection and encouragement of domestic industry.

PROPOSED CHANGES

Certain of the proposed changes follow:

Art. 92 (Inorganic acids, impure or commercial). A—Hydrochloric, boric, nitric and aqua-regie, unchanged from the present rate.

B—Liquid carbonic acid changed from \$5 per 100 kilos to \$8.

C—Other such acids changed from \$5 to \$6 per 100 kilos.

Art. 93 (Organic acids). A—Oxalic, citric, tartaric and carbolic changed from \$1 to \$2 per 100 kilos.

B—Oleic, stearic and palmitic changed from \$1.40 to 50c per 100 kilos.

C—Acetic is changed from \$6 to \$10 per 100 kilos.

D—Other organic acids unchanged.

Art. 94.—Oxides and hydroxides of ammonium, potash and other caustic and barilla alkalies are unchanged at 25c. per 100 kilos.

Art. 95.—Inorganic salts. A—Chloride of sodium raised from \$1 to \$1.50 per 100 kilos.

C—Salts of ammonium (except sulphate), chlorides of potassium, soda, iron, magnesia and sal soda, oxide and carbonate of magnesia, copper salts, hypo-sulphites, and borax, changed from 45c. to 50c. per 100 kilos.

D—Sulphate of ammonium, etc., unchanged, 3c.

E—Carbonate and bicarbonate of soda, reduced from 75c. to 25c. per 100 kilos.

Arts. 96, 97 and 98 changed very little, merely to substitute even numbers for the existing long decimals.

Quinine sulphate is kept on the free list, and it is recommended also that other quinine salts, like hydro-chlorate, be likewise placed there, now paying a duty of \$8.77¼ per kilo.

Under Art. 101 (Vegetable oils), coconut oil is reduced from \$3.75 to \$1 per 100 kilos. Cottonseed oil and olive oil in bulk are increased from 3c. per kilo to 6c.

Under Art. 88-E, coal tar colors, the rate is raised from 20c. to \$1 per kilo.

In the paint section of the proposed schedule, mixed paints and pigments are increased, while the duty on varnishes is reduced. The naval stores schedule shows proposed decreases.

A statement by the United States Department of Commerce follows:

Since tariff changes in Cuba, as in other countries, are matters of purely domestic concern, the United States can take no official action looking toward the reduction of the proposed duties on particular items so long as there is no definite discriminatory treatment of American products. Whatever the new rates of duty, however, goods of American origin will continue to enjoy the present percentage of reduction below the general duties collected by Cuba on goods from other foreign sources, in return for the similar special tariff concession granted to Cuban sugar and other products upon admission to the United States.

The proposed revision will come before the Cuban Congress for consideration when it reconvenes in November. In the meantime, the federation has presented its tariff project to its various constituent bodies in Cuba, including the American Chamber of Commerce in Havana, and representations regarding changes desired in the duties proposed on particular articles will now be heard. American exporters or manufacturers of chemicals interested in the Cuban market, whose interests have not already been presented directly or through their Cuban representatives, may take the matter up through the American Chamber of Commerce in Havana or directly with the federation.

Banco del Comercio

It is reported that the Banco del Comercio has purchased the Edificio Building, Havana, for the sum of \$1,500,000. The building brings rentals of \$153,000 yearly, and the running expenses amount to \$22,500. The lower floor is not included in the given rentals, as it has been empty since the Canadian Bank of Commerce moved. The main offices of the Banco del Comercio will occupy this floor.

First Annual Cuban Exposition Will Reveal Wealth of Island Republic

The first annual Cuban Exposition will open at the Hotel Pennsylvania, in New York City, on Monday, November 16, and will continue through the week. It is to be held under the auspices of the Cuban Chamber of Commerce in the United States, with the coöperation of the Government of the Republic of Cuba.

The purpose of the Exposition is to stimulate a wider interest among business and financial groups and the general public in the wealth and beauty and development of the Island Republic in the Caribbean. By means of a direct wire to Havana, the Exposition will be opened by General Gerardo Machado, President of Cuba, who is honorary president, and the following officials are members of the committee in Havana:

Dr. Carlos Manuel de Cespedes, Secretary of State.

Dr. J. M. Barraque, Secretary of Justice.

Major Rogerio Zayas Bazan, Secretary of Interior.

Dr. Enrique Hernandez Cartaya, Secretary of Treasury.

Dr. Carlos Miguel de Cespedes, Secretary of Public Works.

General M. de J. Delgado, Secretary of Agriculture.

Dr. Guillermo Fernandez Mascaró, Secretary of Public Instruction.

Dr. Daniel Gispert, Secretary of Sanitation.

Dr. Rafael Iturralde, Secretary of War and Navy.

Mr. José M. Cortina, Secretary of Communications.

Dr. Viriato Gutierrez, Secretary to the President.

Dr. Clemente Vazquez Bello, President of the Senate.

Dr. Ramon Zaydin, President of the House of Representatives.

Ledo. Juan Gutierrez Quiros, Chief Justice of the Supreme Court.

Dr. Gerardo Fernandez Abreu, Dean of the National University.

Comandante Antonio Ruiz, Governor of Havana.

Dr. J. M. de la Cuesta, Mayor of Havana.

Dr. Pedro P. Kohly, President, Federacion Nacional de Corporaciones Economicas.

Sr. Aurelio Portuondo, Director, Cuban Chamber of Commerce in the United States.

Sr. Ramon Crusellas, President, National Association of Industrials of Cuba.

Sr. Carlos Arnoldson, President, Chamber of Commerce, Industry and Navigation of Cuba.

Dr. Ramon J. Martinez, President, of the Asociacion de Hacendados y Colonos.

Sr. José Pita, President, Union of Cigar Manufacturers.

Sr. Manuel Suarez Cordoves, President, Asociacion de Almacenistas, Escogedores y Cosecheros de Tabaco de la Isla de Cuba.

Dr. José I. Rivero, President, Press Association.

Mr. William H. Field, President, American Chamber of Commerce of Cuba.

Sr. Narciso Geltas, President, Havana Clearing House.

Sr. Florentino Suarez, President, Lonja del Comercio.

Dr. Fernando Ortiz, President, Sociedad Economica Amigos del Pais.

Sr. Alberto Gonzalez Shelton, President, Rotary Club of Havana.

Dr. Carlos Alzugaray, President, Merchants Association of Havana.

Sr. Rafael Doniphan, President, Asociacion de Comercio e Industrias de Bahia.

Sr. Manuel Otaduy, President, Compania Manufacturera Nacional.

Sr. Luis Morales, President, Cuban Society of Engineers.

Sr. José Fernandez, President, Asociacion Nacional de Ferreteria.

Sr. Ramon Infiesta, President, Spanish Chamber of Commerce.

Sr. Rafael Mercadal, President, Asociacion Nacional de Peletería.

Felipe Tabaoda, the Cuban Consul General, is chairman of the New York Committee. Music will be furnished by a Cuban military band, and the cruiser *Cuba*, on a special voyage, will bring distinguished guests. Luxuriant tropical foliage will add

brilliance to the decorations, and the exhibits—reproductions, in effect, of the Island life—will convey something of the quaintness and charm of an old civilization, as well as the comforts and attractions and practical requirements of the new.

To American business interests the Exposition will be an invaluable source of information about an important nearby market. Cuba, with its keys, has an area almost the size of Pennsylvania. The fertility and depth of its soil have produced extensive agricultural enterprises. Its vast plantations are fringed with prodigious forest growth; its mineral supplies, drawn upon for centuries, are far from exhausted. It exports the bulk of its raw products, but for consumption, especially of manufactured goods, it depends almost entirely upon its imports. In its present trade relations with the United States, its exports are almost double its imports in quantity.

To the tourist and the public in general the Exposition will reveal the attractions of the glittering island jewel as an ideal winter resort. Practical suggestions will be available regarding hotel accommodations, rates, railway and steamship facilities and interesting places to visit. Cuba has a long and eventful history. Its first town was founded only some twenty years after the discovery of America. Like a guardian island, Cuba watches the sea lanes between the Atlantic and the Pacific via the Isthmus. The strategic position of its picturesque ports, on a shore-line "curving like a bird's tongue," gives promise of a swift cultural as well as commercial development and an even richer history for the future.

In addition to the Cuban exhibits at the Exposition, there will be a large representation of American business interests. The U. S. Department of Commerce has plans for its exhibit under way. Among others who have signed for booth space are the U. S. Government, the National City Bank, the Royal Bank of Canada, the Munson Steamship Line, the Ward Line, the International General Electric Company, Fulton Iron Works, Cuban Telephone Company, Honolulu Iron Works, Farrell Foundry & Machine Company, Benj. F. Shaw Engineering Company, American Locomotive Works, and many other leading concerns throughout the United States will have exhibits.

Further information will be furnished from the office of the Cuban Exposition, Room 611, 67 Wall Street, New York City.

Cuban White Pine Market

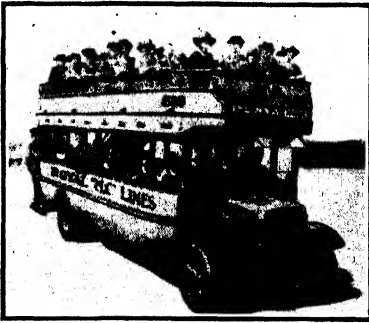
Cuba, our third largest market for white pine, took about 2,800 M feet in 1924, coming from both the western and eastern sections of the United States. The Cuban market is one of the oldest for white pine, and is one in which the use of this species is dependent on deep-rooted custom. Cuba has no native softwood suitable for special purposes for which an easily worked wood is required. The climate of that country also taxes to the utmost the qualities of any wood, and it has been proved that white pine will withstand almost any variation in atmospheric conditions. Keen competition in the market is encountered from Canada, and our sales of white pine have greatly decreased in the past few years. However, a beginning has been made with our western white pine, and the large supply of this species on the west coast will make it possible to promote our white pine trade in Cuba in the future.

Sugar Campaign Results in Moravia and Slovakia, 1924

The following final data are given for the production of beet sugar in Moravia and Slovakia during the campaign 1924-1925:

	Moravia and Silesia	Slovakia
Area cultivated, ha. . . .	100,080	52,526
Beets harvested, tons. . .	2,557,288	1,209,909
Raw sugar made, tons. . .	467,713	192,393
Yield on beets, per cent. .	16.96	15.90
Beets per ha., tons.	27.50	23.00
Sugar per ha., tons.	4.65	3.66

The total number of factories in operation was 58. In comparison with the campaign of 1923-24, Moravia and Silesia showed an increase of 35 per cent in the area cultivated in beets, an increase of 37 per cent in the quantity of beets harvested, and an increase of 33 per cent in the amount of sugar produced; the corresponding figures for Slovakia are respectively 48, 54, and 50 per cent.



Motor Bus to La Playa

Motor Bus Service in Havana

The first motor bus was introduced in Havana during 1922, at which time a traffic expert of the Fifth Avenue Coach Company of New York went there to make a general survey of the situation and help plan the services later established.

Two companies have been organized, one Cuban, the Royal Motor Coach Corporation, better known as the Royal M. C. Lines, and the other American Holding Company with half a million dollars capital.

The Royal M. C. Line has a ten-year franchise for the operation of motor buses in the city of Havana and its suburbs. The same type bus is used as on Fifth Avenue, New York. Employees wear similar uniforms and the same system of collecting fares is employed.

Regular service is maintained to all important points, the famous Prado, Malecon, Central Park, Obispo, San Rafael, Vedado, Miramar, Marianao, Race Track, Bathing Beach, etc., being adequately served.

Banking Reorganization in Cuba

Commercial Attaché Carlton Jackson, Habana, reports to the Department of Commerce as follows:

There is a general understanding that the national administration intends to reorganize the banks which are now in the hands of the Bank Liquidation Commission. It is hoped that all of the liquidations will be completed during the present year. The interest of the administration is particularly directed to the reorganization of the Banco Nacional. The special commission in charge of that bank has

been moving with success and celerity in realizing on assets and disposing of debit balances. Recently the commission sold \$130,000 worth of city bonds held by the Banco Nacional, the certified checks of the bank in circulation since its suspension being taken in payment.

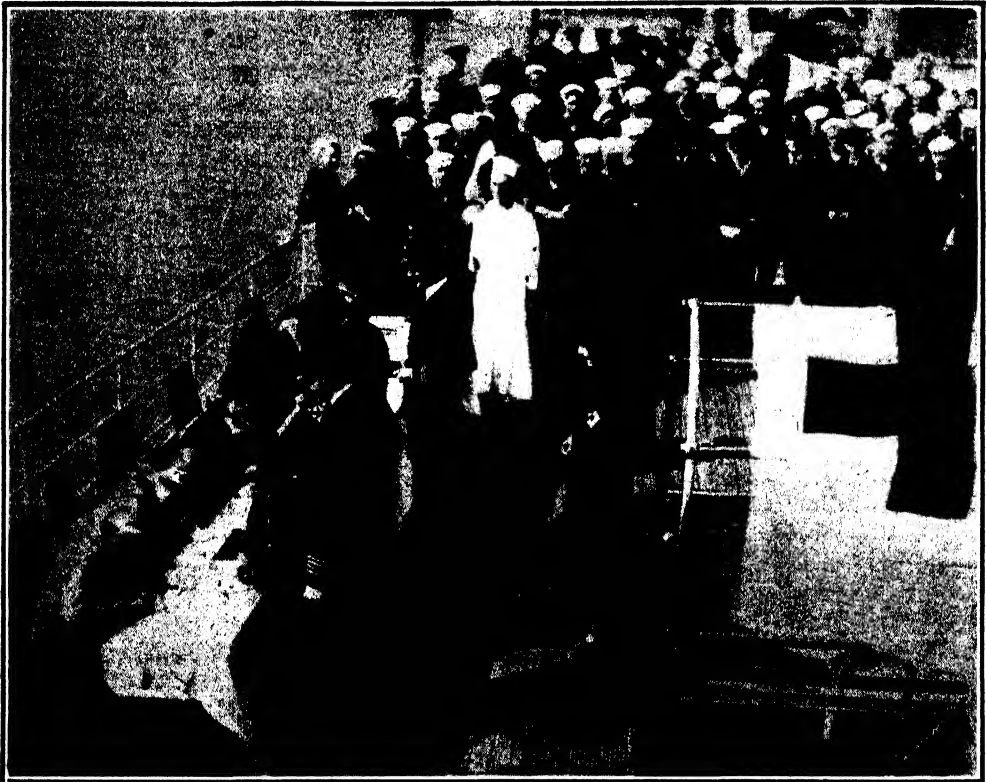
The Bank Liquidation Commission has recently adopted a revision of the scale of remuneration to the various special commissions. In the case of the commission in charge of the Banco Nacional, the total expenses were reduced by \$6,400 per month. In the case of the commission in charge of the Banco Español the saving achieved is \$2,900, and the one in charge of H. Upmann & Co., \$1,200 per month.

Road Construction

During the present year the Cuban Government has made several appropriations for building new highways and completing others already under construction, including the following: For extending the road from Unión to Bolondrón, \$11,414; highway from Santiago de Cuba to Cobre, \$38,963; road from Habana to Managua, \$10,068; Santiago de Cuba to San Luis highway, \$70,000; road from Caimito to Capellánias, \$60,000; and road from Limonar to Coliseo highway, \$50,000. For building two sections of road, one from Cienfuegos to Manicaragua and the other from Cienfuegos to Cumanayagua, the sum of \$240,000 has been allotted.

Secondary Education

A very interesting report was presented by the prominent educator, Doctor Montori, to the National Pedagogical Association in reference to secondary education. Doctor Montori proposes as reforms the organization of a plan of studies and of a system of educational centers for providing professional training for the youth of Cuba. This system would include the establishment of business schools; vocational training schools for both boys and girls; domestic science schools; agricultural schools; schools for the study of chemistry in its relation to the sugar and mining industry; continuation schools for both sexes; and normal and secondary schools.



Red Cross Roll Call Aboard the Presidential Yacht "Mayflower"

At Sea With the Red Cross

In every part of the world to which the American Merchant Marine penetrates, on ships steering full speed ahead into foreign ports there is held each year an interesting and a patriotic ceremony.

It is the Roll Call of the American Red Cross, an organization whose ministrations are globe-wide and which recognizes neither race, color, nor creed in its altruistic service to humanity.

Each year with the coming of Armistice Day the captain announces to the crew the opening of the ceremony which will conclude on Thanksgiving, and each year he gets a quick and generous response. It is the part which the Merchant Marine plays at the High Seas Roll Call in the work for a world which prays for surcease from suffering, ill health and misery, in peace just as it did in war.

The High Seas Roll Call extends not only to the officers and crews of the merchant vessels, but to the United States Navy as well. The crew of the ill-fated

Shenandoah last year was given the 100 per cent Red Cross membership banner.

On the presidential yacht *Mayflower* a Roll Call is held in port each year.

Young women from National Headquarters at Washington, wearing the white uniforms of the Red Cross, board the yacht as it lies anchored in the Potomac and enlist the support of all those aboard ship.

The Munson Steamship Company is an ardent supporter of the Red Cross and holds yearly a High Seas Roll Call on its liners.

The Clyde line, with a fleet of 24, headed the list last year with the largest number of members, the United Fruit Company came second and the Pacific Mail stood third.

Good will is breathed into every letter from steamship managers which finds its way into Red Cross headquarters.

"If there is anything else we can do to help the cause of the American Red Cross along, we shall be pleased to do so," writes

one. "The company will use its utmost endeavors to make this Roll Call a record breaker," say another. "We shall be glad to render every assistance possible in this good work," a third one writes. "This sum is submitted with every assurance of good wishes and good will," a fourth says. And a fifth adds, "We hand you herewith New York exchange for \$50 with application cards of members of the crew."

The generous Merchant Marine signed up 7,213 members last year. This year the managers of the various companies have pledged their support for an even greater Roll Call.

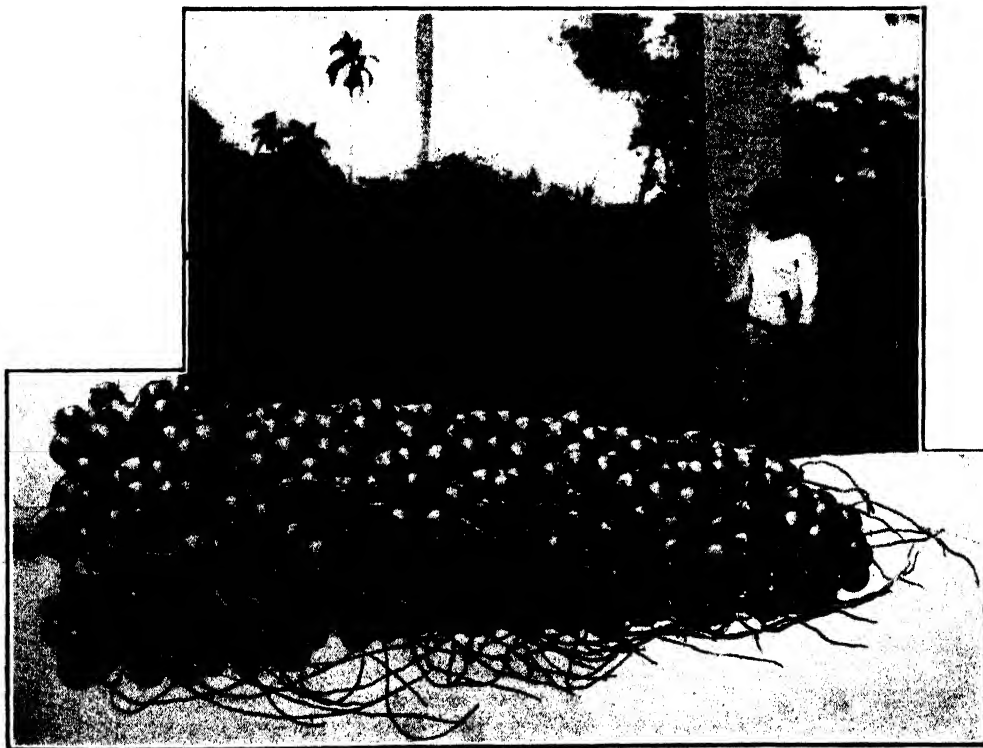
This support means assistance in the furtherance of the disaster relief work of the Red Cross, in its services to disabled veterans of the World War and the men of the regular Army and Navy and their families; in the furtherance of a health campaign which includes instruction given in Nutrition and in Home Hygiene and Care of the Sick, in the plan to prevent drowning through the activities of its Life-Saving Corps and in the minimizing of the dire results of accidents by First Aid training, as well as in the activities of the American Junior Red Cross.

Hershey Buys Central Carmen

Central Carmen at Jaruco, Havana province, belonging to the Compania Azucarera Pedro Fernandez de Castro, S. A., has been purchased by the Hershey Corporation for the consideration of \$2,600,000. The transaction was carried out through the National City Bank of New York, which, following instructions of the purchaser, paid the price in cash to the Pedro Fernandez de Castro Co.

The mill will be operated by a company to be known as "Central Carmen S. A.," of which Doctor Alfredo Belt is president; Dr. Gabriel Garcia Echarte, vice-president; Tomas Calvo, secretary; Ricardo Saraba, assistant secretary; and Percy Alexander Staples, treasurer. The officials of the new company are in the majority officials of the Hershey Corporation in Cuba.

With the purchase of Central Carmen, Mr. Hershey's sugar holdings in Cuba reach the total of 3. They are Centrals Hershey, Rosario and now Carmen. Lines are being built to facilitate communication between the mills, and shipment of their products to Santa Cruz del Norte.



Palmiche—Fruit of the Royal Palm; Ideal Food for Swine

Havana Correspondence

The people of Cuba are by nature optimistic but, owing to four centuries of misrule at the hands of Spain, followed by four administrations of home rule, eventually this natural optimism changed to rank pessimism wherever political promises were given to the public.

Realizing, perhaps, this attitude of the Cuban body politic, General Machado, during his campaign for the Presidency, made but few promises. After his election however, rather to the surprise of the public, he took occasion to make quite a number; promises and declarations that were clear, positive and emphatic. These declarations of plans and policies which he proposed to carry out puzzled his friends, and his opponents were frankly contemptuous.

But no sooner did Machado take up the reins of government than things began to happen—things most unexpected—things quite irregular from the viewpoint of the professional Cuban politician. The public soon discovered that he was quite in earnest as he began with the most unexpected and salutary reforms that so far have ever been undertaken in Cuba.

The President, although quite naturally under heavy obligations to various political leaders who had given him substantial support in his election campaign, nevertheless used rare and apparently wise judgment in the selection of men who today form his cabinet. Of the twelve gentlemen who, under the direction of the President, control the destinies of the Republic, for the present at least, one stands out conspicuously as a man of keen foresight, vivid imagination, unlimited ambition and tireless energy, a man determined to do things—big things—that, if he succeeds, will win for new fame in plenty and leave behind a reputation of talent, determination and executive ability. We refer to Dr. Carlos Miguel de Cespedes, Secretary of Public Works. Once in office, the Secretary began to install a system of public works and improvements that for vast scope and general utility has probably never before been attempted by any country of this size among the nations of the world. This plan includes thousands of kilometers of concrete and asphalt roads, that will reach from the western extremity of Cape San Antonio, over 800 miles, to the eastern terminus of Cabo Maisi. Connecting this great central highway with the various harbors, cities and seaports of importance, will be a network of lateral branches, which, when completed, will form one of the best systems of communication by automobiles and freight trucks that has yet been devised for a country of this size.

Following these roads, and in some urgent cases, preceding them, will be a number of much needed aqueducts that will supply the more important cities of the Republic with fresh water. Santiago de Cuba will probably be the first to benefit by the new system of public works. Fortunately for Cuba, we have nearly all of the raw material necessary to build good highways. Nearly every province contains quarries of foundation rock, as well as deposits of sand, which goes toward road building. More fortunate still, perhaps, is the fact that we have wonderful deposits of clay, many of them, as in the case of Mariel, located beside fine deep water harbors. The Cement Plant known as "El Morro" is considered today one of the finest institutions of its kind in the world. Incidentally, this plant, controlled very largely by American capital, has offered to build some fifteen kilometers of road, from the administration buildings of the factory, through the little fishing village of Mariel, and up on to the plateau of Guanajay, twelve miles distant. It is understood that this automobile drive, which will be one of the most picturesque in all Cuba, will be built of the best concrete, and at the expense of the Company, in order to show the people of Cuba what a first class concrete highway is, and what it should cost the Government to build similar highways in other parts of the Island.

Following the construction of aqueducts will come the building of an adequate number of public schools of which Cuba has long been in need. At no time since Cuba became free from Spain have we had in any province an up-to-date school building,

constructed with reference to the convenience of the pupils and requirements of modern education. Next in importance will come the sewerage and paving of the large number of little interior towns, and some coast cities, all of which are complaining, that during former regimes, the Central Government has practically ignored them and their claims to assistance, in connection with work that is essential to communication between various points of importance throughout the Island. The serious problem of congested traffic in Havana is also pressing for solution. Plans, drawings and studies of the city have been carefully prepared and we have reason to believe that at least one broad modern avenue will be cut through from the old convent of the San Franciscans, in which the postoffice is located, up to the new National Capitol Building, thence continuing westward to the Almendares section, connecting Havana with that beautiful system of drives and parks branching off from the Central Boulevard which will be known as the southern avenue that will form an arm of the "Grand Via" and will extend out through La Vibora, terminating in a magnificent park, south of the district known as Jesus del Monte. With this construction of modern drives and commodious highways will come the development and beautifying of the many parks that are scattered over Havana at the present time. Modern pergolas, bandstands, children's playgrounds, fountains and flowers will be supplied in abundance. From this it may be seen that our Honorable Secretary of Public Works possesses initiative, and will, if given a chance, convert this Island, for which nature has done so much, into a veritable paradise of the West Indies. But the Secretary of Public Works is not the only member of President Machado's Cabinet who is endeavoring to make a reputation. Much to the disgust of the better class of citizens, Havana has gradually acquired a reputation, not for lawlessness, but for a kind of reckless abandonment, and underground immorality, that is not very creditable to the young Republic. Our laws, with reference to the restriction of immigration, are based very largely upon those in force in the United States. Many pressing problems, both social and commercial, have probably prevented past administrations from realizing that this continuous invasion of elements could mean only harm to the best interest of the Republic. Both men and women of this type were exerting a pernicious influence over that class who, through lack of education and lack of means with which to seek higher forms of amusement, had given themselves over more or less to gambling and general immorality. Some of these were women, unfortunates who came from foreign countries seeking to better their condition and who invariably fell a prey to wolves and buzzards in human form who lived on the misfortunes of others.

Our Secretary of the Interior, Zayas Bazan, previous to his appointment as a member of the Cabinet, made a study of the social problem and upon taking office began a most energetic campaign with the purpose of wiping out and doing away, as far as may be possible, with those parasites who live upon corruption and spread it or rather inject it into every section of the city where they can get a foothold. The Secretary of Justice, through his own agents, and those of the Secret Police, rounded up these social hyenas, some of whom, guilty of crimes that come within the reach of the law, were thrown into jail, while others were returned to the countries from which they came, Spain, France, Germany, England and the United States, with instructions never to return under the penalty of severe punishment. Just how many of these social misfits have been expelled up to date we have no definite information, but we are assured by Secretary Zayas Bazan that the campaign against white slavers, dissolute and immoral characters will be kept up until the City of Havana can justly claim to be socially as clean as she is sanitary. Fortunately, although no restrictions are placed upon the drinking of liquors and white wines, beers and soft drinks have always been consumed without any restrictions whatever, we have never been obliged to contend with drunkenness. We have beggars, it is true, but they at least remain sober. In the meantime, the Secretary of Government has been making a serious effort to stop the introduction of dangerous drugs that of late years seem to have gained an insidious hold over weak-minded youths and those discouraged

with life, who either through temptation or despair endeavor to find relief from their sorrows in morphia, cocaine, heroin, and similar poisons of mind and body. Cuba, of late, has seemed to be a shining mart for the sale of these drugs. Unfortunately, too, it has been used as a center of distribution, from which consignments have been smuggled into the United States. This, of course, is much to be regretted, and the authorities are doing all in their power to wipe out the drug habit and to put its promoters behind the bars.

Along one avenue of reform, the present administration, with the full approval and co-operation of General Machado, has made a successful campaign. We refer to the war on anarchy, violence. The agents of this form of communism, with their propaganda, have been sent out with orders from the Third Internationale to sow seeds of discontent, to invoke mob rule, intimidation and even assassination, where representatives of law, peace and order oppose their plans. Within the last thirty days, the Secretary of Government has rounded up, preferred charges, convicted, and expelled, between three and four hundred labor agitators and professional trouble makers from Cuban soil. We are informed that some four hundred more are on the list for deportation, if they do not cease trying to disturb the peace of the country and abandon their efforts to tie up transportation, which brings distress to innocent people and interferes with the progress of the Republic. General Machado, on several occasions, has taken pains to explain his attitude to the labor unions and to assure them that he is a true friend, and will always endeavor to protect and assist them in securing any legitimate concession that they may ask of capital, but that he will not tolerate men who spread discontent, who preach violence, and who advise the overthrow of all Governments, through intimidation and assassination. The red flag cannot fly in Cuba. The emblem with its single star is cherished in the heart of every loyal citizen and nothing will ever take its place in this country.



Cross of the Native Cuban Pig with Durocs

Raising Pigs in the Tropics

Possibilities of the Pork Industry in Cuba

By George Reno

Since the first evidence of man on earth, that most useful pachyderm, known in English as the pig, and in Spanish as "el puerco," has played an important part in the economy of man. He, in company with most of his thick-skinned cousins, the mastodon, hippopotamus, etc., had his origin in that great warm basin of Central Asia, known to-day as the Desert of Gobi. Some of his kind gradually worked West into the dense forests of Central Europe, and finally developed into the wild boars of the black forest country. These are probably the ancestors of our domestic pig.

In the caves of southern France, where the Cro-Magnon race, of the Neolithic age, made his home ten or twenty thousand years ago, are found quite artistic drawings of wild boars, sketched in charcoal and in colored earths on the smooth walls of the cave. Alongside the pig, too, the ancestors of the horse, who at that time was used for food, is also found.

When the Spanish colonists who followed in the wake of Columbus became tired of the search for gold, and concluded to make a home in Cuba, the first step in animal industry was to send back to Spain for breeding animals. Among these came the parents, or progenitors, of the present native pig or "puerco criollo," some of which escaped from control and lived in the dense forests of the mountains, where palmiche of the royal palms, and the many native fruits, pomarosa, guayaba, etc., furnished them with food.

The mountain streams gave him water to drink and wallow in, while the climate, never cold, was to his liking. Wild dogs, escaping from homes, had also taken to the woods, and were his only enemies, but with these the long-tusked leader of the herd put up a pretty good fight, and so nature maintained its equilibrium, until in later years, man stepped in, took care of and fed the pigs, improving the breed and bringing them again into a state of domestication. There are many droves, even to-day, of semi-wild pigs in various sections of the forest-covered mountains of Cuba.

In visiting, some years ago, the late Dr. Rhome of Havana, who had established his country home on the crest of a hill, a few miles back of the harbor of Bahia Honda, I asked the Doctor how many pigs he had in the woods. He replied, "Really I don't know, I am quite sure that I have over a thousand, but whether there may be two thousand or more, I could not say. I employ two or three 'monteros' who look after them, and when in the fall they have grown fat on mangoes and palmiche, I send out men with a little corn bait and a few hogdogs, and they drive them into a corral, when we pick out those best suited for market, and send them into Havana, where they always find ready sale. During the holidays, Christmas, New Years and Los Reyes Magos, I can dispose of all three-months pigs I can find, at five dollars a head, for 'lechon,' or young roast pig."

In many other countries, even in the State of Louisiana fifty years ago, all pigs were permitted to run wild, where they fed on what is termed "mast," acorns, beachnuts, etc. Each owner of pigs in the woods had his private mark, usually a V, or crop, or hole in one or both ears. These marks were registered in the parish seat, and in the fall, when pigs were wanted for the market, the owner went into the woods and hunted his pigs with dogs, ran them down or shot them from ambush in the cane brakes with a rifle.

This, today, would be considered a very primitive form of raising pigs, and although but few attempts have been made towards modernizing the pork industry in Cuba, there is no reason why this Republic should not only raise and furnish her own pork and pork-products, but produce an amount sufficient to supply some of the near-by Latin-American Republics, where conditions similar to those of Cuba still prevail. There

is no animal used for food that will increase so rapidly under favorable conditions as will the pig. With an increase of five to each litter, and two litters a year, which is customary in this country, we have a ten-to-one proposition which theoretically means at least a thousand per cent increase every twelvemonth.

The success of any agricultural or animal industry depends on some five or more vital factors, each of which is almost equally important. First, suitable soil and climate; second, a permanent, profitable market, not too far removed; third, good facilities for transportation; fourth, intelligent management, combined with reasonably cheap labor; fifth, sufficient capital to permit proper development. Under the above conditions, the chances of failure are practically eliminated, which means the success of the enterprise.

At the present time, Cuba is importing approximately twenty million dollars' worth of pork and pork-products every year, in spite of the fact that pigs can be raised with less expense in this island than in perhaps any other section of America. During the past twenty-five years the price paid for pigs on the hoof has remained in the vicinity of twelve cents a pound, and has never fallen below ten. Hams, shoulders and cured meat usually command twenty-five cents per pound, fresh pork retails at thirty-five cents a pound, lard at fifteen cents and bacon at fifty-five. From the above figures it is readily seen that Cuba furnishes a splendid market for home-produced pork and pork-products at all seasons of the year.

Profit in raising hogs depends largely on the cost of the food required to fatten the shoats, or those intended for market. In this respect we are fortunate, since royal palms in Cuba are counted by millions. These produce a small nut called palmiche which, as hog-food, represents the corn of the Northern States. These palms bear throughout the year, each tree furnishing approximately 250 pounds of food, rich in carbohydrates during the twelve months. The only expense attached is that of a "montero," or man of the forest, who climbs the tree and cuts away with his knife one or more of the bunches of nuts, each yielding about 250 pounds of food. One man can easily cut sufficient for a thousand hogs in a day's work.

All animals thrive on a variety of foods, hence it is well to plant corn, both in the spring and fall. Between the rows of corn should be planted some variety of the well-known Cow Pea of the Southern States. Cow Peas, or "frijoles," furnish the protein necessary for nursing sows and growing pigs. To these foods may be added calabaza or squash, and many fruits, mangoes, pomarosa, etc., which grow wild in the forest, and occasionally meat, or fresh fish brought from the coast. With this variety of food, including two crops of corn per year, there can be no difficulty in producing first-class pork at the lowest possible cost.

It is a well-known fact that, next to rabbits and guineapigs, swine produce a greater number of offspring in a given time than any other domesticated animal. In Cuba as well as in the Southern States of the Gulf Coast, sows have two litters a year; those of the prolific varieties averaging seven pigs, or more, at each birth. In this estimate five pigs to each mother has been selected as a fair average. This would give annual yield of ten pigs to the sow.

The barrows, or castrated males, when weighing between 150 and 200 pounds (which should occur at between eight and ten months), are shipped to the Havana market and sold for cash, where they will bring from \$15 to \$25 each, according to weight and condition. From the young sows are selected those that give promise of being good mothers, and the others sold with the barrows.

The first essential, in selecting the location for a hog ranch in Cuba, is to have an abundance of royal palms, the palmiche from which will furnish a staple food at a very low cost. Next in importance is the presence of one or more running streams that do not go dry during the winter season, since water to drink and to bathe in is necessary for both the health and comfort of growing pigs in warm climates. Third in importance may be counted arable land that will grow corn, cow peas, soy beans, peanuts, sweet potatoes, sugar cane and other foods that help to give variety, or to form a balanced ration.



Cutting Palmiche

In this connection, interesting facts in regard to the effect of foods in the growth of shoats, or young pigs, were discovered in the Government Experimental Stations of Iowa a short time ago. Among other things, it was found that a pig, fed on corn alone, would weight only 57 pounds in eight months. But, that with a ration composed of 366 pounds of corn, mixed with 48 pounds of meat meal, the same pig would weight 200 pounds at eight months. Twelve per cent of meat, dried blood or tankage, mixed with corn, will reduce the feed bill 60 per cent or more, since of corn alone 1,447 pounds are required to make 100 pounds of weight. In other words, the pig, to a certain extent, is carnivorous, and a certain percentage of animal protein is essential to rapid growth after he is weaned. Milk will have a like result. Strange as it may seem, the same is true of poultry. These factors, combined with intelligent management, and the presence of a good veterinary surgeon, will insure success and yield a larger return on the capital invested than any other industry in the Republic of Cuba.

The location established, and the property purchased or leased, a suitable ranch house, with kitchen close by, should be put up for the benefit of the employees. After fencing off an area, in proportion to the number of brood sows with which the company proposes to begin, a strong corral should be built on the banks of a running stream or lagoon, where the breeding pens are placed. Within this corral one or two "bohios," or palm thatched houses, should be put up so that the monteros, or men in charge of the brood sows, may keep a careful watch during the night.

Within that portion of the ranch where the soil is richest a number of fields in the form of parallelograms, about two acres, or four hundred and forty feet in width, and a half mile long, should be plowed up with a light tractor, disc-harrowed and planted in the above-mentioned crops. Movable fences of wire are placed at convenient points along the field, so that shoats may be turned in at one end of the plot and moved along down the stretch as fast as they have eaten off the food from any



Native Bohio for use of Monteros

given section. During the rainy season most of these crops will come up a second time, some varieties even a third. The rooting up of the soil, and the droppings from the pigs, will enrich the land, furnishing more food later on. When eventually plowed up, if the season is not too dry, the land should be at once replanted, so that an abundance of green food will always be available.

As before stated, the standard food of pigs in Cuba is the palmiche from the royal palm, almost if not quite as rich in carbohydrates as corn. Men or boys, expert in climbing the trees, cutting and lowering the bunches of palmiche, can easily be secured for twenty-five or thirty dollars a month and board. This, where one owns a palm forest, renders the food exceptionally cheap, which means profit in the pork produced.

The most successful breed of pigs in Cuba has proved to be a cross between our native sow, called "la china," rather long bodied, smooth of skin, black, with little or no hair, and well adapted to this climate, and the Duroc. "La china" is quite prolific, accustomed to the food and fruits of the country, and is a very good mother to her little ones. These sows, crossed with good thorough-bred Durocs from the United States, produce an animal that would be a credit to any country. The further crossing of the offspring with standard Duroc boars, of course, still further improves the breed, since each crossing enables the shoats to put on fat more rapidly than the original mother. A shoat of this crossing, with a plentiful supply of food as above described, can easily be made to weigh from 150 to 200 pounds in eight to ten months from date of birth, and these are the weights most preferred in the markets of Cuba.

.. It is a remarkable fact that in all Latin-American Republics, from the Rio Grande to southern Argentine, pork, either fresh or cured, is preferred to any other meat. Even tender young turkey, during the Christmas holidays, cannot compete with "lechon" that has been fed on palmiche.

With an artificial ice-plant, and a plentiful supply of fresh cold water, there is no reason why pork should not be successfully cured in this country, since many of the small hardwood trees of Cuba, especially those grown in savanna lands, when used in smoking hams, shoulders and bacon, give a delightful aroma which seems to permeate and flavor the pork in a way that is unequaled by the wood used for that purpose in the United States.

It is true that the pork industry, or rather the raising of pigs in Cuba, as in all other countries, has its drawbacks, the most serious of which is a disease known here as pintadilla, a variety of the hog cholera. But the judicious and timely use of the two cholera serums has reduced this danger to the minimum. A well-known hog-raiser in Cuba has assured the writer, that with the use of said serum, he reduced his losses in the first year to less than 4 per cent, afterwards eradicating the disease completely.

The most important thing in the pig industry is to see that the disease is prevented from ever entering the herd. This is not difficult if precautions are taken, whenever cholera may be announced in any part of the island, to see that buzzards are not permitted to stop on the premises. The Cuban Government is manufacturing the serums above referred to at the Experimental Station in Santiago de las Vegas, and competent veterinarians, under the direction of a chief connected with the Department of Agriculture, keep a close watch at all times, so that if by chance the disease starts in any part of the island, it may be confined and wiped out before it has an opportunity to spread.

The pork industry is one of the most important in the world today. In the United States alone there are approximately seventy million head of hogs. More American pork is exported to Cuba than to any other country, and in proportion to our population, we are, perhaps, the greatest consumers of pork and pork-products known. It is the desire of this Republic to encourage home industries of all kinds, especially those which will provide us with a staple article of food. For this reason alone, we are calling attention to the fact that Cuba offers perhaps a better field for the investment of capital than any other country in the semitropical world.

The following tables of increase in pig raising in Cuba, together with cost of installation, care and management, are based on local experiments that are always more expensive than when the industry is conducted on a large scale.

Two hundred brood sows have been selected as the initial unit, since the returns from the sale of the two litters of barrows, born during the first year, will pay most of the expenses and leave, at the beginning of the next year, a herd of one thousand two hundred brood sows, the profits from which, in a short time, will run into the hundreds of thousands.

INVESTMENT

INITIAL EQUIPMENT REQUIRED

2,000 acres, with royal palms, at \$15 per acre	\$30,000.00
Payrole for 14 men—first year.....	10,500.00
Groceries, food, etc.....	1,500.00
200 native Brood sows at \$15.....	3,000.00
5 good Duroc boars at \$200.....	1,000.00
12 native ponies at \$25.....	300.00
12 saddles and bridles.....	200.00
Ford tractor and disc-harrows.....	1,000.00
1 Dodge car.....	1,200.00
1 Ford truck.....	800.00
Wire fencing for corral.....	200.00
2,000 ft. of lumber for house frames.....	140.00
Cots for men.....	80.00
Plows, ropes, tools, etc.....	80.00
	<hr/>
	\$50,000.00

HOGS

RUNNING EXPENSES 1ST YEAR

1 Manager.....	\$3,000.00
1 Asst. Manager.....	1,800.00
1 Veterinary at \$100.00.....	1,200.00
3 Herders at \$50.00.....	1,500.00
2 Palmiche cutters at \$25.00.....	600.00
2 Farmers at \$30.00.....	720.00
1 Cook at \$30.00.....	360.00
1 Carpenter at \$50.00.....	600.00
1 Messenger boy at \$10.00.....	120.00
1 Chauffeur at \$50.00.....	600.00
	<hr/>
	\$10,500.00
Food.....	1,500.00
Incidentals, oil, gas, cement, etc.....	1,000.00
	<hr/>
	\$14,000.00

SECOND YEAR

4 Additional herders.....	\$2,400.00
4 Additional palmiche cutters.....	1,200.00
2 Additional farmers.....	720.00
1 Additional carpenter.....	600.00
1 Additional chauffeur.....	600.00
1 Additional cook's helper.....	280.00
1 Additional handy man (gardener).....	200.00
	<hr/>
	\$6,000.00
First year expense.....	14,000.00
	<hr/>
Running expense, two years.....	\$20,000.00

THIRD YEAR

20 Additional herders.....	\$12,000.00
20 Additional palmiche cutters.....	6,000.00
4 Additional farmers.....	1,400.00
3 Additional chauffeurs.....	1,800.00
1 Additional mechanic at \$60.00 board.....	720.00
1 Additional asst. manager.....	1,200.00
1 Additional bookkeeper.....	1,000.00
2 Additional fence builders.....	720.00
1 Additional veterinary.....	1,000.00
4 Additional messenger boys.....	480.00
3 Additional cooks.....	860.00
1 Additional goat herder.....	720.00
1 Additional poultry raiser, groceries, gasoline, etc.....	1,000.00
	<hr/>
	\$30,000.00
Second year expense.....	20,000.00
	<hr/>
Payrole after third year.....	\$50,000.00

RESUMÉ OF RETURNS AND EXPENSES FOR THREE YEARS

Cash returns from barrows, first year.....	\$10,000.00
Expense, first year.....	14,000.00
	<hr/>
Cash returns, second year, May of '26.....	12,000.00
Cash returns, second year, Nov. of '26.....	32,000.00
	<hr/>
	\$44,000.00
Expenses, second year.....	20,000.00
	<hr/>
PROFIT.....	\$24,000.00
	<hr/>
Cash returns, May of '27.....	\$100,000.00
Cash returns, Nov. of '27.....	500,000.00
	<hr/>
	\$600,000.00
Expenses, third year.....	50,000.00
	<hr/>
PROFIT.....	\$555,000.00

BREEDING INCREASE AMONG SWINE

ORIGINAL INSTALLMENT OF TWO HUNDRED BROOD SOWS

	<i>Sows</i>	<i>Gilts</i>	<i>Barrows</i>		<i>Sold</i>	
Jan. '25.....	200	500 A	500 A	\$20	\$10,000	Nov. '25
June '25.....	200	500 B	500 B	20	12,000	May '26
June '26.....	600 A	1,500 C	1,500 C	20	32,000	Nov. '26
June '26 (A. & B.).....	1,000 D	5,000 D	5,000 D	20	100,000	May '27
Jan. '27 (A. B. C.).....	2,500 E	6,500 E	6,500 E	20	250,000	Nov. '27
June '27 (A. B. C.).....	2,500 F	6,500 F	6,500 F	20	250,000	Jan. '28
					<hr/>	
					\$654,000	

If a herd of 2,500 brood sows is permanently maintained and cared for the gross returns should approximate \$500,000 per year.

Exports of Iron and Steel to Cuba

Cuba, which ranks third as a market for iron and steel products, took 11,129 tons, or 8 per cent of our exports. The Cuban receipts were nearly one-third rails and accessories, the remainder being mostly galvanized sheets, structural shapes, galvanized pipe, steel bars, and barbed wire.

Exports of Anthracite Coal to Cuba

Exports of anthracite to Cuba, which totaled 15,347 tons in July compared with 9,838 tons in June, were by far the heaviest shipments during 1924 and 1925 and amounted to more than half the total exported to that destination in the first half of the current year.

Cuban Commercial Matters

Conditions in Cuba During the First Half of 1925

M. J. Meehan, Latin American Division, Department of Commerce, reports as follows:

Business conditions in Cuba during the first half of the year felt the effects of low sugar prices and a feeling of depression was prevalent. The price of sugar dropped sharply in December, 1924, and it sold for less than \$0.03 per pound at the first of this year. As the season progressed and large supplies became more evident, the price continued its downward trend until the average quotation for the month of May was only slightly above \$0.0225 per pound. A slight improvement occurred in June, but in general the low level which previously had not been reached since 1922 was maintained. The margin of profit realized from these low prices is regarded as no more than ample in most cases to finance operations and very little surplus is expected to be available to liquidate old balances.

CANCELLATION OF ORDERS

At the beginning of the year, the general feeling of uncertainty caused by low sugar quotations caused importers to slow up in placing orders and cancellations of orders previously placed were numerous. As the season went on, buying in practically all lines was confined to replacements and to immediate needs and business in general was dull. Collections gradually became more difficult and wholesalers and jobbers in Habana, who had been carrying the retail dealers, found difficulties in collecting the considerable amount owing to them. Continued slackening of buying affected import orders and any marked revival of buying can not be looked for until fall.

BUILDING ACTIVITY CONTINUES

The large amount of building construction continued unabated through the first six months of the year and it is expected that it will receive added impetus during the latter half because of the elaborate program of public works which is being

undertaken by the Government. Several new apartment houses in Habana have been completed and construction work in the subdivisions of the city still continues at a rapid pace, while several divisions that were partially laid out a number of years ago are now being improved with streets and pavements. Work on several large commercial buildings progressed rapidly and a number of new ones are projected. Suppliers of building materials have enjoyed a steady volume of business and building activities have offered employment to a considerable number of persons and their number is expected to be augmented when the program of the Government gets under way.

RECORD SUGAR CROP PRODUCED

Although the total outrun of the 1924-1925 crop has not been made, it is fairly certain that the final figure will not be far from 5,100,000 tons, according to the estimates of the Cuban Department of Agriculture and Commerce. This crop is the largest that has ever been produced and exceeds the previous year's by approximately 1,000,000 tons. However, due to the low prices which have prevailed, the monetary return on the crop probably will not be as large as that for the 1923-24 crop.

Up to the beginning of July, 4,285,970 tons of sugar had been received at the ports, and of that amount 3,078,647 tons had been exported. The increase in this year's production can be visualized when these figures are compared with those for 1924. Up to the corresponding date of the latter year, 3,442,256 tons had been received at the ports and of that amount 2,615,180 tons had been exported. The weather during the summer months has been favorable to the progress of the 1925-1926 crop.

UNITED STATES EXPORTS TO CUBA INCREASED

In spite of adverse conditions in Cuba as compared with the early part of last

year, our shipments to that country recorded an increase of \$6,883,770 during the first half of the present year when compared with an equal period of 1924. In the first semester of this year we shipped to Cuba merchandise to the value of \$100,410,896, as against \$93,527,126 for the first six months of 1924. On the other hand, our imports from Cuba during the same period fell from \$231,687,190 in 1924 to \$161,881,787 in 1925—a decrease of \$69,805,403, or over 31 per cent. This decline in the value of shipments imported from Cuba is due directly to the low prices received for sugar, for, notwithstanding the fact that the quantity received was greater than last year, the value was considerably less.

Preliminary figures of exports from Cuba for the first five months of the year indicate that the total value of exports was approximately the same as in 1924. Total exports amounted to \$180,899,687—an increase of \$60,357 over the figures for the first five months of the previous year.

GOVERNMENT FINANCES—BANK CLEARINGS

A comparison of Government revenues for the first five months of the year with the same period of 1924 indicate a decrease of \$1,219,373, the total collections for 1925 for the period cited being \$42,371,201, as against \$43,590,574 for the same period of 1924. This decrease in revenues did not occur in the customs collections, as receipts from this source registered an increase of \$1,073,277, which would seem to indicate that the import movement has been well sustained in spite of adverse business factors. Collections on account of the 1 per cent sales tax were \$176,228 less for the first five months of 1925 as for the similar period of 1924. In view of the falling off of revenues during the past five months, President Machado has pointed out that the financial condition of the country requires economy in Government operations.

THE BUDGET FOR FISCAL YEAR 1925-26

The budget for the fiscal year 1925-26 was approved by Congress on June 17,

1925, and provides for expenditures to the amount of \$83,787,590, and estimates the revenues at \$84,791,649. The budget for the previous year provided for expenditures to the amount of \$65,138,643 and estimated revenues at \$71,048,200. The increases in revenues and expenditures are more apparent than real, because the 1924-1925 budget was a continuation of the 1923-24 budget, as a new budget was not adopted by Congress in 1924 and by law the previous budget continued in force. Revenues were considerably in excess of the above estimated amount and expenditures were increased by a large number of presidential decrees expending money for various purposes.

THE FLOATING DEBT

Definite action toward the settlement of these obligations was taken in February and a law passed providing for satisfying them in installments over a period of four years. It was estimated that approximately \$14,000,000 was required to meet the balance due on the claims and the law provided for the immediate payment of a 25 per cent installment and for the remainder to be taken care of in equal installments from the four succeeding budgets. This law gave to these obligations a definite legal status and has enabled many merchants to adjust old indebtedness and allowed firms in this country to realize on holdings taken over from Cuban debtors in payment for their accounts with the latter.

BANK CLEARINGS INCREASED

Bank clearing through the Habana banks for the first six months of the year amounted to \$632,854,880, an increase of \$162,578,650 over the corresponding period of 1924. However, the increase is made up of larger clearings during May and June, as the figures for the first four months of the current year were below those of the same months of 1924. The figures for the latter two months were low in 1924, owing to political and labor conditions which considerably hampered business and suspended in a large part operations throughout the Island.

The Francisco Sugar Company

Annual Report for Fiscal Year Ended June 30, 1925

The annual report of the Francisco Sugar Company and subsidiaries for the year ending June 30, 1925, shows net income of \$294,386 after charges as compared with \$1,185,312 in the preceding year. This is equal to \$5.88 per share on the outstanding capital stock as against \$23.70 per share earned in the year ending June 30, 1924.

THE FRANCISCO SUGAR COMPANY AND COMPAÑÍA AZÚCARERA ELIA CONSOLIDATED BALANCE SHEET AS AT JUNE 30, 1925

ASSETS

Property, Plant and Equipment.....		\$13,263,280.67
INVESTMENTS:		
Cane Harvester Corporation, Preferred and Common Stock...	\$10,400.00	
Cuba Sugar Finance and Export Corporation Capital Stock.....	320.00	10,720.00
CURRENT ASSETS:		
Materials and Supplies on Hand.....	\$393,201.79	
Colonos Accounts Receivable.....	1,999,988.43	
General Accounts Receivable.....	201,011.66	
Sugar on Hand.....	2,666,719.49	
Molasses on Hand (Since Collected, \$36,055.31).....	111,719.41	
Balances Pending on Sugar Contracts (Since Collected \$32,656.60).....	191,763.12	
Deposits with Bankers Trust Co. to pay Bond Interest.....	6,985.50	
Cash.....	532,050.97	6,103,440.37
Advances to Cuban Customs Houses.....		10,034.19
Charges Deferred and Paid in Advance.....		148,854.02
Claim Against Cuban Government (see <i>contra</i>).....		1,000,000.00
Deferred Discount and Expenses on Bonds.....		292,910.35
		<u>\$20,829,239.60</u>

LIABILITIES

Capital Stock, Authorized \$6,000,000.00, Issued.....		\$5,000,000.00
First Mortgage, 20 year, 7½% Sinking Fund Gold Bonds due 1942, Outstanding.....		4,470,000.00
Serial Notes (Due July 1, 1926).....		150,000.00
Purchase Money Mortgages on Lands.....		146,570.66
Deferred Payments on Purchase of Cane and Other Assets, as per contracts.....		161,148.67
CURRENT LIABILITIES:		
Bills Payable.....	\$500,000.00	
Drafts Payable.....	196,672.88	
Accounts Payable.....	1,948,181.61	
Expenses Payable on Unshipped Sugar and Molasses.....	321,974.31	
Accrued Interest Payable.....	70,015.20	
Serial Notes (Annual Proportion due July 1, 1925).....	150,000.00	
Reserve for Taxes.....	61,619.10	
Dividends Payable July 1 and October 1, 1925.....	150,000.00	
Salaries and Wages Accrued, Cuba.....	14,059.73	
Federal and State Income Taxes Withheld.....	2,183.88	3,414,706.71
Reserve for Claim against Cuban Government (see <i>contra</i>).....		1,000,000.00
RESERVES:		
For Accounts Receivable.....	\$162,263.70	
For Colonos Accounts.....	340,851.44	
For Depreciation of Plant and Equipment.....	1,818,884.75	
For Sugar Contracts.....	18,816.00	2,340,815.89
SURPLUS		4,145,997.67
		<u><u>\$20,829,239.60</u></u>

CONSOLIDATED PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED JUNE 30, 1925

Sugar Sales, C. & F.....		\$8,021,445. 24
Molasses Sales.....		480,796. 40
Miscellaneous Operating Income.....		55,388. 33
Total Operating Income.....		\$8,557,629. 97
Deduct Operating Expenses.....		7,156,361. 04
Profit on Operations.....		\$1,401,268. 93
Add Interest Earned.....		145,991. 49
		\$1,547,260. 42
Deduct Interest on Mortgage Bonds, Serial Notes, Current Accounts, etc.....	\$470,678. 40	
Discounts on Drafts.....	23,415. 77	
Proportion of Bond Discount and Expenses.....	35,751. 63	
Premium on First Mortgage Bonds Purchased and Delivered to Sinking Fund.....	13,028. 00	
Reserve for Depreciation of Plant and Equipment.....	540,000. 00	
Reserve for Colonos Accounts.....	125,000. 00	
Reserve for Taxes.....	45,000. 00	1,252,873. 80
BALANCE TRANSFERRED TO SURPLUS ACCOUNT.....		\$294,386. 62

CONSOLIDATED SURPLUS ACCOUNT AS AT JUNE 30, 1925

BALANCE AS AT JUNE 30, 1924.....		\$4,034,646. 52
Add Adjustments applicable to Previous Fiscal Years.....	\$109,592. 26	
Adjustment in Valuation of Working Capital Assets.....	38,753. 75	148,346. 01
		\$4,182,992.53
Deduct Adjustment of Bond Discount and Expenses to June 30, 1924.....	\$18,400. 66	
Adjustment of U. S. Income Taxes year 1918-19.....	12,980. 82	31,381. 48
		\$4,151,611. 05
Add Balance of Profit and Loss Account for year ended June 30, 1925.....		294,386. 62
		\$4,445,997. 67
Deduct Dividends Paid and Declared.....		300,000. 00
BALANCE AS AT JUNE 30, 1925.....		\$4,145,997. 67

Imports of Sugar

According to the report of the United States Department of Agriculture, molasses imported into the United States for the fiscal year ending June 30, 1925, amounted to 215,778,000 gallons, valued at \$14,-989,000, compared with 174,037,000 gallons valued at \$6,666,000 imported during the year ending June, 1924.

Sugar imported during the year ending June 30, 1925, included 4,377,000 short tons of cane, 2,000 short tons of beet, and 6,294,000 pounds of maple sugar and syrup. This represented a gain of 612,000 tons of cane sugar over the 1923-24 import of 3,765,000 tons and an increase of more than threefold in maple imports, which were only 1,784,000 pounds in 1923-24.

Havana Plans Samples Exhibit

The Cuban Consul General has announced that the second international display of samples will be conducted in Havana for three weeks beginning February 5, 1926. Manufacturers throughout the world are reserving space, it is reported. The largest blocks are said to be contracted for by New York corporations.

Hawaiian Sugar Crop Estimate

Cable advices from Honolulu report that the final revised estimate of the 1924-25 sugar crop of Hawaii shows a further increase to 781,400 short tons (697,678 long tons). The previous estimate was 753,700 short tons.

Traffic Receipts of Cuban Railroads

Earnings of the Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending August 22.....	£11,674	£12,086
Week ending August 30.....	11,414	12,518
Week ending September 5.....	11,365	12,222
Week ending September 12.....	11,522	11,993
Week ending September 19.....	11,329	12,239

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending August 22.....	£57,421	£66,250
Week ending August 30.....	53,860	66,780
Week ending September 5.....	59,394	68,116
Week ending September 12.....	62,620	66,397
Week ending September 19.....	58,910	64,409

Havana Electric Railway, Light & Power Company

	MONTH OF JULY		7 MONTHS TO JULY 31ST	
	1925	1924	1925	1924
Operating Revenues.....	\$1,228,944	\$1,189,584	\$8,814,609	\$8,197,775
Operating Expenses and Taxes.....	676,529	629,627	4,559,075	4,194,977
Net Revenues.....	552,415	559,957	4,255,534	4,002,798
Other Income.....	27,903	25,204	233,465	194,989
Total Income.....	580,318	585,101	4,488,999	4,197,787
Interest Charges.....	87,663	90,802	625,696	639,298
INCOME, after deducting taxes and interest charges.....	492,655	494,359	3,863,303	3,558,489
Sinking Fund Requirements.....	30,176	27,278	193,348	182,780
Balance of Income.....	462,479	467,081	3,669,955	3,375,709

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	94	95
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	100¼	100¾
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	97½	99
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	90¾	94
Havana City 1st Mtge. 6% Bonds.....	100	—
Havana City 2nd Mtge. 6% Bonds.....	90	—
Cuba Railroad Preferred Stock.....	86	90
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	86⅞	87
Cuba Company 6% Debenture Bonds.....	85	90
Cuba Company 7% Cumulative Preferred Stock.....	86	100
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	97¼	98
Havana Electric Railway, Light & Power Co. Preferred Stock.....	113	116
Havana Electric Railway, Light & Power Co. Common Stock.....	238	240
Cuban-American Sugar Co. Preferred Stock.....	95	98
Cuban-American Sugar Co. Common Stock.....	22¾	23
Guantanamo Sugar Co. Stock.....	3⅞	4

The Sugar Industry

Sugar Production in Cuba

[This survey was prepared by the Bureau of Agricultural Economics in the United States Department of Agriculture on basis of data obtained through an investigation conducted in Cuba by representatives of the Department. The article was given preliminary publicity in the July 27, 1925, issue of "Foreign Crops and Markets," the weekly journal issued by the Department, and is reproduced from that source.]

Cuba, the world's most important source of cane sugar, exported in 1924 4,538,853 short tons and in 1923, 3,872,353 short tons of the raw product, largely to the United States for refining. It is estimated that at full capacity, the 180 mills now operating could manufacture 6,000,000 short tons annually. While various agencies estimate the annual production of the sugar mills, or centrals, none of them have an accurate gauge of the areas under cultivation, nor of the areas that might be adapted to sugar production to the point of supplying the centrals with cane enough to work at full capacity. The industry, therefore, is still pretty much at a loss for knowledge of current annual production on the basis of yields per unit of area, and the full potentialities of production are not known.

The importance of Cuban sugar in the world's economic life prompted the sending of a party of investigators, headed by Dr. W. F. Callander, Senior Statistician in Charge of Crop and Live Stock Estimates, United States Department of Agriculture, to study the sources of information in Cuba, and the methods used by the various crop estimating agencies. The results of the investigation showed, first, that none of the agencies now reporting on Cuban sugar are getting all of the available facts on which to base their production estimates; and, second, that a more comprehensive survey of the areas of both present and potential production will reveal possibilities of greater production. There is an apparent tendency to concentrate the resources interested in grinding cane, at the same time increasing the output of sugar.

The centrals are scattered over the Island, from the Province of Pinar del Rio to the Province of Oriente, both included.

About one-third of the mills are owned and operated by Americans. Sixty per cent of the American-owned mills are in the two eastern provinces of Camaguey and Oriente. The other two-thirds of the mills are owned or controlled by Cubans and Spaniards, and a few by English and French interests. Most of the expansion in sugar production that has taken place since 1914 has been in the provinces of Camaguey and Oriente, in eastern Cuba. Vast amounts of American capital have been invested in the purchase of land and in construction of centrals in those provinces.

Some mill managers say that if the cane were properly cultivated, diseases controlled and good seed used, Cuba could make six millions of short tons with the additional land available. It appears unlikely, however, that this figure will be greatly exceeded, because some mills are not able, particularly in the western end of the Island, to get an adequate supply of cane from the area now given over to cane production, and because of such checks as cane fires, labor strikes and the like. It is said that there is a considerable amount of good land now in use in Camaguey and in Oriente as cattle land that could be brought into cultivation.

Exclusive of those lands, however, there are probably not over 330,000 acres of good cane land left unused on the whole Island. Cuba is endeavoring to make an industry of cattle raising, so it is believed that unless the price of sugar improves, the likelihood of the cattle lands being taken for sugar-cane growing is remote. In the eastern provinces of Cuba it is said that at present good cane land may be had for about \$60 per acre, and for about \$150 per acre with the cane planted on it.

CUBA: EXPORTS OF RAW SUGAR BY COUNTRIES, CALENDAR YEARS 1913, 1920-1924*

Countries to which Exported	1913 1,000 Pounds	1920 1,000 Pounds	1921 1,000 Pounds	1922 1,000 Pounds	1923 1,000 Pounds	†1924 1,000 Pounds
United States.....	4,837,425	5,302,932	5,306,722	8,901,553	6,936,335	7,214,644
Argentina.....				4,678		
Canada.....	53,442	201,870	46,530	172,659	86,910	151,567
Germany.....	3	9		13,310	1	
Belgium.....	331	70,765	6,693	67,228	10,615	
Spain.....	32	23,530	18,588	16,861	138	
France.....	27,430	127,400	136,543	301,040	57,536	122,817
Holland.....	10,845	45,175		29,410	22,781	
Italy.....			35,883	201		
Mexico.....	4	91	86			
United Kingdom.....	547,103	1,105,384	662,352	1,520,324	571,452	1,126,828
China.....			34,136	34,832		
Japan.....			112,566	87,792		
Poland.....				4,726		
Other countries.....	285	108,411	51,073	10,080	65,036	173,118
Totals.....	5,476,900	6,985,567	6,411,172	11,164,694	7,750,804	8,788,974

*Refined sugar exports converted to raw sugar equivalents.

†Preliminary figures.

The Cuban Government has no late information on sugar areas or production. The agricultural statistics gathered and published by the Government are extremely meagre and incomplete. Few statistics have been gathered on any crop excepting sugar, and on that crop forecasts of production have been made only during the past two years. In December, 1924, a bulletin was issued by the Cuban Department of Agriculture giving very detailed statistics of sugar production for the 1923-1924 campaign by provinces and by centrals. This bulletin is regarded generally as accurate and complete. It is said to have required months to gather the data, and hundreds of letters and telegrams were used to get the 180 centrals to report. On March 4, 1925, the Cuban Government issued an estimate of 4,474,000 short tons of sugar for the present crops. They began on December 1, 1924, to get the data for the report, and it is based almost wholly on reports of the mill managers. All available crop information comes from mill managers, colonos or growers, and brokers.

All private and public reporting agencies use these sources in compiling their estimates, some of them supplementing their data with each other's reports when necessary for presenting the completest picture possible. Two of the leading private reporters spend considerable sums annually to secure such returns. Failure to secure

accurate acreage data is laid to the unreliability of the colonos' reports, who tend to overestimate their plantings when applying to the mills for advances to produce the crop. Accurate returns are available only for lands owned and controlled by the mills, some of which, particularly those American-owned, keep very complete statistical records of field operations. It seems to be the practice of the mills to draw up in advance early in the year what they call a planting program, and many of the mills say they know positively by the beginning of Summer what acreage of cane they are going to have for harvest at the next campaign, with the exception of cane not under contract or "free cane," weather interferences, cane fires and the like. The mill makes an estimate for its own lands and also for the lands under lease to the colonos.

The mill manager is the man who knows best each Fall what his production of sugar is going to be. He has the very best opportunity of knowing. The field managers (jefes de campo) get in touch with the colonos during October and November and ascertain just how much cane they are going to be able to furnish the mill, and inspect the colonos' fields to see whether the colonos are correct in their statements. The more careful managers have two or more men make separate estimates of the same field, using one estimate as a check

against the other. Estimates are also made of the quantities of independently grown cane available to each mill. It is insisted that the latter part of November or early December is the earliest possible date that accurate production forecasts can be made, as the yield depends to a very large degree on the rains and temperatures in September, October and November. Until the effect of these rains and temperatures is known, mill managers are averse to furnishing estimates of production. Some of the centrals make a second estimate of their production at about the middle or towards the close of the grinding season, this second estimate being in the nature of a revision of their December estimate and based on later and better data. It is these later estimates by the mill managers, for the most part, that furnish grounds to the estimating agencies for revising their earlier figures.

The apparent tendency, however, is gradually to increase sugar areas, although there is a very close relationship between the price of sugar and the plantings of cane. For example, this year, with the prices of sugar below three cents, reports from various sources are to the effect that the quantity of new land being cleared for cane is small, and that the acreage that will be available for harvest a year from this Fall will be about the same as for the current year, with even a possible reduction where the yield of old cane has fallen too low to be profitable and the new acreage is not sufficient to replace abandoned land. With the planter, much depends as to whether or not he will increase his areas upon the time at which he must plant, whether the ground will be moist enough when he is ready. But the only climatic condition that can interfere is the dry season, and that is also the grinding season. The grinding season begins usually about the middle of December or early in January and usually runs from four to six months. While the area at present under cane is not likely to be much increased, it is true that there are possibilities of increasing yields through the proper use of fertilizers, control of diseases—especially the mosaic disease—drainage of lands, use of higher yielding varieties of cane, and the employment of better methods of culti-

vation. If every planter would follow improved methods, it is thought not too much to say that the yields could be almost doubled on the present acreage. Up to now, however, very little systematic work has been accomplished, and while some high-yielding varieties of cane have been developed, little progress has been made in their dissemination. The variety grown almost universally is known as "Crystallina."

A man planting 660 acres of cane is regarded as a small colono. Some colonos are said to plant as much as 3,300 acres, and occasionally more. A colono after clearing the land and planting the cane has a lien on the subsequent crops harvested from the first planting. The party who purchases the ratoon from the colono assumes the colono's contract with the mill. Usually the mill makes settlement for cane delivered in cash rather than in sugar, but the colono may take the sugar if he desires. The price is determined every two weeks. When sugar prices are low, mill operators have more difficulty in borrowing ample money to conduct their operations. If the centrals are not able to get the money they need, they will not be able, of course, to finance the colonos, and that will automatically curtail plantings, since the contracting colono can not operate without funds from the centrals.

It appears that most of the good land is under the control of existing mills, and it is thought altogether unlikely that the number of mills will be substantially increased in the future. Indeed, it is regarded as possible that the number may be reduced because of consolidations and the abandonment of old sugar land which has ceased to be profitable for sugar production. Some of this old land is in the Provinces of Matanzas, Pinar del Rio and Habana. In Matanzas and Habana some such lands are being put into henequen, or sisal. Henequen gives promise of being a profitable crop for Cuba.

According to certain mill managers, there are three plantings of sugar in a year in Cuba: *Primavera* (Spring) planting, which runs from April to June inclusive. *Medio tiempo* (mid-season) planting is done in February and March, and *frio* (Fall) planting, in October, Novem-

ber and December. By June the planting is finished for the approaching campaign. Spring planting is said to give the best yields, and some of this crop may be harvested towards the close of the first campaign after planting, at about the same time that the preceding *medio tiempo* cane is harvested. *Medio tiempo* cane does not yield so well as *primavera*, but gives second best yields. *Frio* cane runs from about one year to fifteen months from planting to time of harvest; that is, planted in the Fall of one year, it is ready for harvest at the beginning of the second campaign after planting.

Yields vary according to the season and locality in which the cane is planted, according to some mill managers. Managers at centrals in Santa Clara Province, adjacent to Cienfuegos, say that new Spring plantings and new *medio tiempo* (mid-season) yield from 750 to 1,000 short tons per unit of 33 acres, first cutting, but that *frio* or late planting does not do that well. Ratoons (stubble) give an average of about 500 short tons. In this particular area the ratio of ratoon cane to plant cane is given as 3 to 1. The heaviest yields are reported in the eastern provinces, where the lands are new and good in comparison with the middle and western provinces. Yields in Matanzas are said to run as low as 375 short tons per 33 acres when not fertilized, and some lands there with fertilizer yield as high as 625 short tons, the average for that province being about 560 short tons. Some mills there gave the yields in 1/10 acre units (*cordellas*) and the yield per *cordella* as 3,125 pounds of cane, equivalent to about 15.3 tons of cane per acre. In Camaguey yields range from 937 to 2,500 short tons per 33 acres, first cutting, and no fertilizer used. An authority on cane in the field mentions yields in Camaguey province as high as 3,500 short tons per 33 acres on virgin land, first cutting and no fertilizer used, and no cultivation. According to the same authority, in Camaguey Province the first year they get about 1,250 short tons, and after the first cutting the land will yield well for about three or four years because the cane will have stoolled out and have better roots. On land planted in 1914 one central is getting 937 to 600 short tons

per 33 acres. In Matanzas Province it is told that after the first cutting the cane stools out better, so that the second, third and even the fourth cutting is as good as the first. After that the yield diminishes steadily. But the practice nevertheless is to keep cutting from the ratoons for a number of years.

The number of arrobas (25 pounds) of sugar paid by the mills, per 100 arrobas of cane delivered, varies about the Island. It is highest in the middle and western provinces and lowest in the eastern provinces. Production is easier and cheaper in the eastern provinces by reason of the lands there being newly brought into sugar cane and yields being larger. Some centrals in Matanzas province say their contracts are for 150 pounds (six arrobas) of sugar, with colonos not under contract getting as much as seven, seven and a quarter, and even seven and a half arrobas in some cases. In Camaguey and Oriente provinces, the contract figure is as low as 112 pounds ($4\frac{1}{2}$ arrobas). In certain sections the colonos at present are demanding 125 pounds (5 arrobas) of sugar, a figure thought by the mills to be too high.

Colonos make their contracts at an agreed price for a period of perhaps ten years. Usually the contract provides that the colono will receive so many arrobas (25 pounds) of sugar for every 100 arrobas of cane that he delivers at the mill. If sugar prices fall low trouble sometimes occurs between the mill and the colonos, because the colonos want to throw over their contracts. More arrobas of sugar per hundred arrobas of cane are demanded, and if the demands are not allowed the colonos refuse to deliver the cane. When a central can not grind all of its available standing cane, the cane is sent to some other central for grinding. If that can not be done the cane is allowed to remain standing until the next grinding season and is shown in the mill's statement of operations as green cane available for grinding during the campaign but left standing.

The "free colono," not under contract, grows "free cane" on land owned by the colono himself, or at any rate not owned by the mill. He owes the mill nothing, so may sell his cane to whichever mill will pay him the highest price. It sometimes

happens that there are a half dozen or more mills close enough for the free colono to sell to, and it becomes necessary for the mills to bid against one another for his cane. The highest bidder each year gets it. In one year a central might get as much as three million arrobas of free cane, and the next year it might not get more than one million, and maybe none at all.

In the newly developed sections the land on which the cane is grown is owned for the most part by the mills. They plant some of the land themselves and they lease a portion of it under contract. In some instances land is leased by the mills from large landowners and subleased to the colonos. The mills advance money to the colonos, and fertilizer if they wish it.

About \$1,500 and 70 bags of fertilizer per unit of 33 acres is the advance generally made. The colono uses the money to clear the land, plant the cane and work the crop, the mill in this way being able to control the amount of cane that the colono will plant. The plan is pretty much the same as that of the southern merchant in the States who finances the cotton planter. When a colono reports to the mill office that certain work has been done, the mill sends out a field inspector to check him up and see that the work has been actually done as reported, and this before any advance of funds is made. Sometimes through the inefficiency or dishonesty of a field inspector a false report is returned to the mill office, although this seldom occurs.

CUBA: ESTIMATES OF SUGAR PRODUCTION

Year	Secretary of Agriculture, Commerce and Labor. Short Tons.	Secretary of the Treasury. Short Tons.	H. A. Himely Co.* Short Tons.	Guma- Mejer Co.† Short Tons.
1899-1900.....	336,082	317,689	.....	345,568
1900-1901.....	712,159	686,308	.....	712,159
1901-1902.....	952,203	967,447	.....	952,203
1902-1903.....	1,118,738	1,124,338	1,118,743	1,118,743
1903-1904.....	1,165,055	1,178,546	1,165,055	1,165,055
1904-1905.....	1,302,849	1,325,349	1,302,849	1,302,849
1905-1906.....	1,320,199	1,377,361	1,342,599	1,320,599
1906-1907.....	1,598,994	1,618,187	1,598,994	1,598,994
1907-1908.....	1,077,393	1,085,588	1,077,393	1,077,393
1908-1909.....	1,694,965	1,704,436	1,695,212	1,695,212
1909-1910.....	2,020,871	2,035,649	2,020,871	2,020,871
1910-1911.....	1,661,465	1,670,151	1,657,843	1,661,465
1911-1912.....	2,123,502	2,142,420	2,120,929	2,123,502
1912-1913.....	2,719,961	2,737,264	2,720,749	2,719,961
1913-1914.....	2,909,460	2,891,281	2,908,155	2,909,460
1914-1915.....	2,921,984	2,967,427	2,892,786	2,903,787
1915-1916.....	3,398,385	3,436,649	3,367,419	3,368,865
1916-1917.....	3,421,597	3,441,771	3,382,328	3,386,566
1917-1918.....	3,889,966	3,957,061	3,857,958	3,859,613
1918-1919.....	4,490,902	4,596,710	4,443,145	4,448,389
1919-1920.....	4,183,676	4,209,349	4,176,452	4,177,686
1920-1921.....	4,406,413	4,451,010	4,407,685	4,408,365
1921-1922.....	4,517,470	4,532,904	4,475,732	4,475,953
1922-1923.....	4,083,483	4,086,781	4,033,798	4,035,259
1923-1924.....	4,606,223	.....	4,538,853	4,554,639
1924-1925 estimate.....	5,011,216	.....	5,712,000	5,516,000

*H. A. Himely quotes Willett & Gray for years previous to 1902-1903.

†Years previous to 1905-1906 quoted from Willett & Gray based on estimates made by Joaquin Guma.

Formosa's Crop Estimate

The 1925-26 sugar crop in Formosa will be of approximately the same size as that of 1924-25, according to the official government estimate which has been transmitted to the Department of Agriculture. The estimate puts the expected outturn at 535,722 short tons (478,323 long tons), against a 1924-25 production of 526,162 short tons.

Porto Rico's 1924-25 Sugar Crop

In his annual report to the Governor, Commissioner of Agriculture Carlos E. Chardon gives an extensive review of the Porto Rican sugar industry together with detailed figures of production by mills during the past season in comparison with the year preceding. This statement shows that the 1924-25 output was the largest in the history of the island, amounting to 660,003 short tons (589,288 long tons), as against 447,570 short tons (399,616 long tons) in 1923-24, or a gain of 47.4 per cent.

The figures of outturn for each of the thirty-nine mills active during the past season and for each district of the island, in tons of 2,000 pounds, are given below:

Central	1924-25	1923-24
Northern Dist.:		
Los Canos.....	10,654	5,942
Cambalache.....	32,829	18,000
Plazuela.....	20,005	15,922
Monserate.....	10,734	8,810
San Vicente.....	18,140	12,221
Carmen.....	12,642	9,921
Constancia.....	13,944	10,466
Juanita.....	10,326	7,803
Vannina.....	12,005	7,283
Victoria.....	9,697	5,207
Canovanas.....	23,662	17,188
Total.....	174,641	118,763
Southern Dist.:		
Guanica.....	100,077	62,052
San Francisco.....	4,396	3,181
Rufina.....	17,600	12,543
Mercedita.....	22,791	10,807
Constancia.....	3,498	3,074
Boca Chica.....	9,422	6,160
Cortada.....	13,295	8,373
Aguirre.....	59,024	34,965
Machete.....	15,816	11,050
Lafayette.....	19,783	14,881
Total.....	265,702	167,086
Eastern Dist.:		
Fajardo.....	53,157	40,450
Triunfo.....	5,426	5,500
Pasto Viejo.....	15,064	11,951
Ejemplo.....	9,423	9,222
Mercedita.....	19,025	16,016
Columbia.....	7,068	6,067
Playa Grande.....	11,951	6,485
Puerto Real.....	10,234	3,493
Total.....	131,348	99,184
Western Dist.:		
Coloso.....	20,144	14,798
Rochelaise.....	7,437	6,000
Eureka.....	7,289	6,127
Total.....	34,870	26,925

Int-rior Dist.:		
Defensa.....	12,750	3,341
Juliana.....	1,155	500
Plata.....	3,500	1,878
Soller.....	1,184	865
Santa Barbara.....	872	74
Santa Juana.....	11,951	8,087
Juncos.....	22,083	17,867
Total.....	53,445	35,612
Grand total.....	660,003	447,570

The gain in production of some of the mills during the past season was very striking. Thus Central Guanica of the South Porto Rico Sugar Company made over 100,000 short tons in comparison with 62,000 tons in 1923-24 and is the first Porto Rican mill to exceed the 100,000-ton mark in a single season. Central Aguirre increased its output 71.6 per cent to 59,024 tons, while Fajardo raised its production from 40,450 tons in 1923-24 to 53,157 tons in 1924-25. The three so-called American companies, South Porto Rico, Aguirre, and Fajardo, which operate eight mills, together produced 43.6 per cent of the total crop. Several centrals more than doubled their output during the past season, among these being Mercedita, Juliana, Defensa, Puerta Real, and Santa Barbara. Of the different sections the largest gain in production was obtained in the southern district, where it amounted to 59 per cent.

In discussing the causes of the great increase in production during the past season Commissioner Chardon states that a questionnaire was sent out to the managers of all the mills asking their opinion on the subject. From the replies received the Department has been able to draw some interesting conclusions.

All the managers agreed that the growth in production was due largely to very favorable weather conditions. The following statistics supplied by the United States Weather Bureau show the increase in rainfall which was generally distributed throughout the island:

District	1924-25 In.	1923-24 In.
Northern.....	75.34	57.69
Southern.....	58.93	40.05
Eastern.....	79.17	54.70
Western.....	75.31	66.85
Average.....	68.00	51.83

Seventeen managers mentioned the propagation of higher yielding varieties of cane as an important factor contributing to the increase in their crops. Most of them listed the well-known varieties B.H. 10-12 and S.C. 12-4 as making the best records in yields. Averages of seven to eight tons of sugar per acre were commonly obtained from these varieties in the southern district. The interest of growers in new varieties is characterized as surprising and is considered an encouraging sign of progress in the adoption of more scientific methods.

Thirteen managers give credit to the introduction of Uba and other varieties resistant to mosaic in aiding production. This is true especially of mills in the western section and in the Arecibo valley, where the ravages of mosaic were particularly severe. Uba is still predominant in the western district, although it is gradually being replaced by P.O.J. canes from Java, which produce more sugar in addition to being highly resistant to mosaic.

Customs house figures give the shipments of sugar from the island during the fiscal year 1924-25 as 571,386 short tons, valued at \$53,240,480, or an average price of 4.77 cents a pound. For the previous fiscal year shipments were 371,751 short tons, valued at \$48,939,202, or an average of 6.59 cents a pound.

Coming Crop to Be Large

The condition of growing cane is reported very good and the present outlook points to a crop during the 1925-26 season fully as large as the one just completed and possibly approaching 700,000-ton mark.

While the present low price of sugar is unremunerative to some of the mills which are not well organized on the administrative side, the large outturn of the past season, by lowering unit costs, has enabled well managed companies, including most of the larger mills, to make a profitable showing.

The following figures show the production of Porto Rico during the past ten years in tons of 2,000 pounds:

1924-25.....	660,003 tons
1923-24.....	447,570 "
1922-23.....	379,070 "
1921-22.....	405,936 "

1920-21.....	491,114 tons
1919-20.....	485,070 "
1918-19.....	406,003 "
1917-18.....	453,796 "
1916-17.....	503,081 "
1915-16.....	483,590 "

Java's 1924-25 Exports

The following table based on official returns shows the destination of Java sugars exported from May 1, 1924, to April 30, 1925, covering the 1924-25 crop:

Country	Long tons
Holland, inc. "for orders".....	18,395.9
England.....	80,611.6
France.....	101,024.5
Belgium.....	12,419.4
Italy.....	4,317.9
Germany.....	2,556.8
Norway.....	2,423.9
Sweden.....	9.9
Portugal.....	4,197.9
Servia.....	890.4
Greece.....	15,611.2
Turkey.....	125.1
Egypt.....	6,652.1
Russia and Finland.....	33,341.1
Suez.....	6,000.0
Port Said for orders.....	122,233.1
Total west of Suez.....	411,939.7
America, East Coast.....	775.4
America, West Coast.....	21,830.7
Singapore.....	81,411.2
China.....	83,888.6
Hongkong.....	314,566.7
Japan and Formosa.....	339,855.5
British India.....	558,262.2
Australia.....	3,181.9
New Zealand.....	6,963.3
Siam.....	19,277.5
Penang.....	17,014.9
Arabia.....	3,561.3
Philippines.....	30.1
Grand Total.....	1,862,614

Exports for Fiscal Year

According to the statistics compiled by the foodstuff division of the Department of Commerce exports of refined sugar from the United States were 501,124,000 pounds (250,562 short tons) for the fiscal year 1924-25, ending June 30.

These figures almost double the exports for the corresponding period 1923-24. The increase may be traced to the larger exports to the United Kingdom, Argentina, Greece, Spain, Germany, and Norway.

Sugar Review

Specially written for THE CUBA REVIEW by Willett & Gray, New York, N. Y.

Our last report was dated August 18th, 1925. At the time of this report the market was quite firmly maintained at 25½c c. & f., and as the demand for refined sugars continued in large volume, buyers accepted all sugar offered at 25½c c. & f. In fact, there was not enough sugar available at 25½c c. & f., so towards the close of August refiners advanced their views to 2 21/32c c. & f., which price was maintained until the second week of September, when the market began to show signs of weakness. From this time the market declined rather rapidly to the basis of 27/16c c. & f.

One of the chief causes of this comparatively sharp decline was that large Cuban holders showed a willingness to sell sugars to countries outside the United States, at prices below what they were asking in the American markets, and furthermore they were willing to sell sugars for delivery as far ahead as January, 1926. When this became known to refiners they declined to be further interested in the market at 25½c c. & f., and since then have only been buyers on declines.

In the meantime, the demand for refined sugar which had been quite large began to slack off owing to the weak raw market, and at this writing there is very little doing in the way of new buying in refined sugar, although withdrawals in new contracts previously placed continue quite good.

Referring again to the offerings of Cuban sugars for delivery October, 1925, to January, 1926, these offerings were well received by European buyers, and sales resulted of fully 100,000 tons of Cubas for shipment October, 1925, to January, 1926, at prices ranging from 12s 1½d down to 11s 6d all c. i. f. U. K. or Continental ports.

An interesting feature occurring during the period under review has been the large reduction in the amount of Cuban sugars held in warehouses against contracts made on the New York Sugar Exchange. At the time of our last report there was about 100,000 tons of these sugars held in warehouses, and which has since declined to 63,000 tons; these sales all having been made to refiners in competition with Cuban, Porto Rican and Philippine sugars for shipment and without disturbing market conditions to any extent.

Several countries, owing to largely increased crops, have arranged to export their surplus supplies, and which countries previously either consumed all their sugars at home or else found it necessary to import sugars. Among such countries are Natal, South Africa, which country has sold about 15,000 tons to the United Kingdom refiners, as well as Australia, which has a large surplus crop, of which they have sold about 180,000 tons to U. K. refiners.

Advices from Europe in regard to crop conditions state that the weather has improved quite materially during the past few weeks. Some countries will show a decided increase in the size of their beet-crop such as Russia, which is expected to make a crop of 900,000 tons this year compared with 450,000 tons last year. This latter figure was not sufficient for Russian consumption, hence they had to buy some 100,000 tons of other sugars, part of which came from the United States in shape of refined sugar.

This year's Java crop, harvesting of which started in April-May, 1925, is being harvested under extraordinarily good conditions and a high yield, which necessitates a further increase in this crop, which is now estimated at 2,240,000 tons. This is about 240,000 tons more than last year's Java crop.

REFINED.—The refined markets during most of the period under review have shown an advancing tendency, as the demand during the greater part has been remarkably large. In fact, our advices indicate that the United States is using up more sugar than they ever have previously. At this writing the general selling price of refiners is 5.60c. In addition to a large local business, the export trade has also been quite good, all of which tended to keep the refiners very busy during the period under review.

The United States domestic beet crop, as far as the Eastern part of the United States is concerned, has been growing under favorable conditions until recently when the weather became hot and dry. Western United States weather conditions have improved recently, although in some sections the crop has been affected by the previous dry weather. The new domestic beet sugars for Chicago, East to Buffalo-Pittsburgh have not yet been offered for sale, although the crop will shortly begin harvesting. There is some old beet crop left in the territory westward from Chicago to the Rocky Mountains, and this is being offered at 5.60c seaboard basis.

New York, N. Y., September 18, 1925.

Refined Sugar Exports from Hawaii

According to reports of the Department of Commerce the following table shows that refined sugar exports from Hawaii were more than double those of the preceding year. With the further development of water power and its utilization in industry, it is probable that Hawaii in time will export the greater part of its sugar crop in the refined state instead of in the raw form as at present.

EXPORTS OF HAWAIIAN SUGAR TO CONTINENTAL UNITED STATES

Items	Quantity	
	1923-24	1924-25
	Pounds	Pounds
Sugar, refined....	6,600,450	14,900,020
Sugar, unrefined..	1,164,787,582	1,357,442,499

Items	Value	
	1923-24	1924-25
Sugar, refined....	\$585,140	\$981,152
Sugar, unrefined..	73,935,808	63,632,662

The manufacture of molasses, a by-product of the sugar industry, appears also to be growing fast. Exports of this product to continental United States during the year reached 19,827,189 gallons, almost double the volume for the preceding year, and about 1.5 pints for each person in the United States.

Mauritius Crop Forecast

While other cane sugar producing countries are looking forward to another year of bumper crops in 1925-26, the producers of Mauritius anticipate a reduction in output according to a report received by the United States Department of Agriculture. The preliminary estimate of the coming Mauritius crop places the expected production at 227,000 short tons, as compared with 248,000 short tons produced in 1924-25.

Sugar Beet Crop Prospects in Russia

According to statistics of the Soviet Sugar Trust, as received by the Russian Information Bureau, this year's sugar beet crop in the Soviet Union, from sowings of 1,513,300 acres, will run close to six million tons. This will yield about 900,000 tons of sugar, nearly double the output of last year, and about 60 per cent of the average for 1910-15. The output exceeds the estimated program by 100,000 tons. Since the population of the Soviet Union is 75 per cent of that of the former Russian Empire, it is estimated that no further imports of sugar will be necessary.

A good crop of sugar beet seed is also anticipated this year. It is hoped to collect 1.3 tons of seed from every hectare (2.47 acres) as compared with 0.46 ton in 1924. This will fully cover the needs for next year's sowings and provide a surplus of about 6,500 tons.

Improvement of Peruvian Conditions

United States Commercial Attaché at Lima reports the sugar industry in Peru still depressed as a result of the low prices and crop damage, although conditions have been somewhat improved by the exchange premium on foreign drafts received for exports. Several large mills resumed grinding after having been shut down for several months on account of the lack of cane and damage from heavy rains. Freight rates on sugar shipments to Europe have been reduced by the steamship conference.

Foreign trade statistics for the first six months of the year show a greater decline in sugar exports than any other commodity, the decrease amounting to 39 per cent in quantity and 68 per cent in value as compared with the corresponding period of 1924.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 18 de agosto de 1925. En esa ocasión el mercado estaba firmemente sostenido al precio de 25½c. costo y flete, y como la demanda por azúcar refinado continuaba en grande escala, los compradores aceptaban todo el azúcar ofrecido á 25½c. costo y flete. En efecto, no había bastante azúcar disponible á dicho precio, así es que hacia fines de agosto los refinadores subieron sus precios á 2 21/32c. costo y flete, y cuyo precio se sostuvo hasta la segunda semana de septiembre, cuando el mercado empezó á dar indicios de flojedad. Desde este periodo el mercado bajó bastante rápidamente á la base de 2 7/16c. costo y flete.

Una de las causas principales de esta baja comparativamente rápida era que grandes tenedores de azúcar de Cuba mostraban estar dispuestos á vender azúcar á países fuera de los Estados Unidos á precios más bajos de lo que estaban pidiendo en los mercados americanos, y aun más estaban dispuestos á vender azúcar para entrega tan pronto como enero de 1926. Cuando supieron esto los refinadores rehusaron interesarse por más tiempo en el mercado al precio de 25½c. costo y flete, y desde entonces sólo han sido compradores cuando bajaban los precios.

Entretanto, la demanda por azúcar refinado, que había sido bastante grande, empezó á disminuir debido al mercado flojo de azúcar crudo, y al escribir esta reseña se están efectuando muy pocas compras de azúcar refinado, aunque la recogida de azúcar de contratos efectuados anteriormente continúa buena.

Refiriéndonos otra vez á las ofertas de azúcar de Cuba para entregar de octubre 1925 á enero 1926, estas ofertas fueron bien recibidas por compradores europeos, y las ventas llegaron á ser por completo de 100,000 toneladas de azúcar de Cuba para embarcar de octubre 1925 á enero 1926 á precios que varían de 12s 1½d á 11s 6d todo costo, seguro y flete en la Gran Bretaña o puertos del Continente europeo.

Un acontecimiento interesante que ocurrió durante el periodo bajo revista ha sido la grande disminución en la cantidad de azúcares de Cuba retenida en almacenes contra contratos hechos en la Bolsa de Azúcar de Nueva York. En ocasión de nuestro último informe había como unas 100,000 toneladas de estos azúcares retenido en almacenes y que desde entonces han bajado á 63,000 toneladas, habiéndose hecho estas ventas á refinadores en competencia con azúcares de Cuba, de Puerto Rico y las Filipinas para embarque y sin perturbar las condiciones del mercado en modo alguno.

Varios países, debido á cosechas grandemente en aumento, han hecho arreglos para exportar sus existencias en exceso, y cuyos países o bien consumieron anteriormente todo su azúcar en el país o de lo contrario les fué necesario importar azúcar. Entre dichos países se cuenta Natal, Sud Africa, cuyo país ha vendido aproximadamente 15,000 toneladas á refinadores de la Gran Bretaña, así como Australia, que tiene una grande cosecha en exceso, y de la cual han vendido unas 180,000 toneladas á refinadores de la Gran Bretaña.

Noticias de Europa acerca del estado de la cosecha manifiestan que el tiempo ha mejorado bastante durante las últimas semanas. Algunos países mostrarán un aumento decisivo en el tamaño de su cosecha de remolacha, tales como Rusia, que es de esperarse tendrá una cosecha de 900,000 toneladas este año comparado con 450,000 toneladas el año pasado. Esta última cifra no fué suficiente para el consumo en Rusia, de ahí el que tuvieran que comprar unas 100,000 toneladas de azúcar de otros países, parte de lo cual procedía de los Estados Unidos bajo la forma de azúcar refinado.

La cosecha de Java de este año, cuya recolección empezó en abril y mayo de 1925, se está llevando á cabo bajo condiciones extraordinariamente buenas y con una producción grande, lo cual significa mayor aumento en esta cosecha, que se calcula ahora en 2,240,000 toneladas. Esto es aproximadamente 240,000 toneladas más que la cosecha de Java el año pasado.

REFINADO.—Los mercados de azúcar refinado durante la mayor parte del periodo

bajo reseña han mostrado tendencia al alza, pues la demanda durante su mayor parte ha sido notablemente grande. En efecto, las noticias que hemos recibido indican que en los Estados Unidos se está usando más azúcar de lo que habían usado anteriormente. Al escribir esta reseña el precio general de venta de los refinadores es 5.60c. Además de grandes transacciones locales, el comercio de exportación ha sido también bastante bueno, todo lo cual ha contribuido á que estuvieran ocupados los refinadores durante dicho período.

La cosecha de remolacha del país, en lo que se refiere á la parte oriental de los Estados Unidos, ha estado creciendo bajo condiciones favorables hasta últimamente, cuando el tiempo se puso caluroso y seco. Las condiciones del tiempo al oeste de los Estados Unidos han mejorado recientemente, aunque en algunas partes la cosecha ha sido afectada por el tiempo seco anterior. El azúcar nuevo de remolacha del país del este de Chicago á Buffalo-Pittsburgh no se ha ofrecido aún para la venta, aunque la cosecha empezará á recolectarse pronto. Hay alguna cantidad de azúcar de remolacha que ha sobrado de la cosecha anterior en el territorio al oeste de Chicago á las Montañas Roquizas, y este azúcar se está ofreciendo á 5.60c. base litoral marítimo.

Nueva York, septiembre 18 de 1925.

Sorghum Cane Acreage

The acreage of sorghum cane grown for syrup in the United States is estimated by the Department of Agriculture at 397,000 acres this year, against 404,000 acres in 1924 and a five-year average of 457,000 acres. The condition of the crop September 1 was 62.2 per cent, compared with an average September condition for the past five years of 78.9 per cent. From the present condition a production of 26,248,000 gallons of syrup is forecast as compared with the 1924 production of 27,339,000 gallons and an average for the past five years of 38,170,000 gallons.

Sugar Crop Conditions

The crop reporting board of the United States Department of Agriculture reports the average condition of sugar beets in the United States on September 1 as 79.2 per cent against 79.4 on August 1 and 79.1 on September 1 last year. The average condition for September for the past ten years was 88.

The condition of the Louisiana sugar cane crop for September 1 is 78 against 85 for August 1 and 52 on September 1 last year. The average condition for the past ten years on September 1 was 76.

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(Revised to October 1, 1925)

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"ALL ABOUT CUBA"

An Illustrated Monthly Magazine, 67 Wall Street, New York

MUNSON STEAMSHIP LINE, Publishers

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ADVERTISING RATES ON APPLICATION

Vol. XXIII

November, 1925

No. 12

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Gardens at Central Amistad

THE CUBA REVIEW

"ALL ABOUT CUBA"

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VOLUME XXIII

November, 1925

NUMBER 12

Cuban Government Matters

Cuban Money Export Tax Decision

Assistant Trade Commissioner O. R. Strackbein, Habana, reports as follows to the United States Department of Commerce:

The Cuban tax of $\frac{1}{4}$ of 1 per cent. on the export of money is collected on products exported from Cuba, with the provision that if the proof of payment therefor is presented within 90 days, the tax collected will be refunded. Under the regulations relating to the collection of this tax it was not clear whether the tax would be collected with respect to products exported but for which payment had been received previous to exportation, such as is the case with a considerable quantity of tobacco and sugar. Since the purpose of the law was to tax money or its equivalent permanently withdrawn from the country and not to tax the export of commodities, the Cuban treasury department has now made provision for the reimbursement to exporters of the amount of tax paid when the payment for the goods is received before their exportation.

The following instructions have been issued by the Cuban Secretary of the Treasury:

The exporter should obtain from the foreign importer a sworn declaration from the Cuban consul of that place or from the nearest Cuban consulate, affirming that the cargo has been approved by him and paid

for by means of a draft, giving the quantity and date of the draft as well as the name of the drawer and drawee, in accordance with the model approved by the treasury department. The declaration must also include the date of receipt of the shipment as well as the port of embarkation and the name of the ship. With this sworn declaration the exporter may obtain the certificate, required by section B of article 30 of the law, from a bank registered with the treasury department, in which the exporter has been credited with the amount of the foreign draft. This certificate will be taken into consideration by the department in making its reimbursement of the tax to the exporter. The inscribed bank will take care to ascertain that the sworn declaration corresponds to the amount with which it has credited the exporter who presented the declaration.

Public Works Program Started

The new public works program has been officially started by beginning the work of widening the entrance to Havana harbor. At the same time the Malecon, or Sea Drive, will be continued all along the harbor front. The Public Works department has taken over from the city of Havana control of the waterworks and will manage that department.



Sr. Jesus Maria Barraque, Secretary of Justice

Expulsion of Foreigners by Cuban Government

A decree signed by President Machado on July 21, 1925, regarding the expulsion of foreigners from the Republic gives the following causes for which foreigners shall be expelled:

(a) Foreigners who have been sentenced by a competent court to imprisonment for crime, or for the distribution, use, or sale of narcotic drugs;

(b) Foreigners who violate the White Slave Law or who aid or abet in any form whatsoever the bringing of persons to the Republic for immoral purposes;

(c) Foreigners carrying on propaganda tending to destroy or injure the existing form of Government, institutions, or public authorities, or who instigate wanton destruction of property, spread anarchistic principles, or preach the overthrow by force of the constitutional Government.

Only in the event of an extremely grave offense shall a foreigner who has lived five years or more in the Republic, is married to a Cuban woman, and has children born in the Republic be expelled. Any foreigner who is expelled will be sent to the port from which he embarked for Cuba, or to a

port of the country of his last residence before coming to Cuba, or to his native land, as may be determined by the Secretary of the Interior, but in no event shall he be sent to a country in which he has been tried and sentenced to a term in prison or accused of a political offense. A foreigner who has once been expelled from the Republic may not return without the permission of the Secretary of the Interior.



General Manuel Delgado, Secretary of Agriculture, Commerce and Labor

Cuban Budget for 1925-26

Cuba's budget, appropriating \$83,787,588.90, approved by Congress, distributes funds as follows:

Presidency.....	\$481,520.00
State Department.....	1,768,235.28
Justice Department.....	322,520.00
Interior Department.....	9,025,643.00
Treasury Department.....	4,158,861.50
Additional Treasury.....	6,954,883.73
Education Department.....	14,055,116.04
Public Works Department.....	5,148,426.00
Sanitary Department.....	5,278,696.94
Agriculture Department.....	981,280.62
War and Navy Department.....	12,043,354.79
Veterans' Fund.....	4,383,004.10
Port Improvements.....	950,000.00
Interest and Sinking Funds on Public Debt.....	11,173,275.00
Legislative Power.....	2,932,730.00
Judiciary Power.....	4,130,041.90
Total Budget.....	\$83,787,588.90

A Message to the Cuban Exposition

From the Director General of the Pan-American Union

Dr. L. S. Rowe

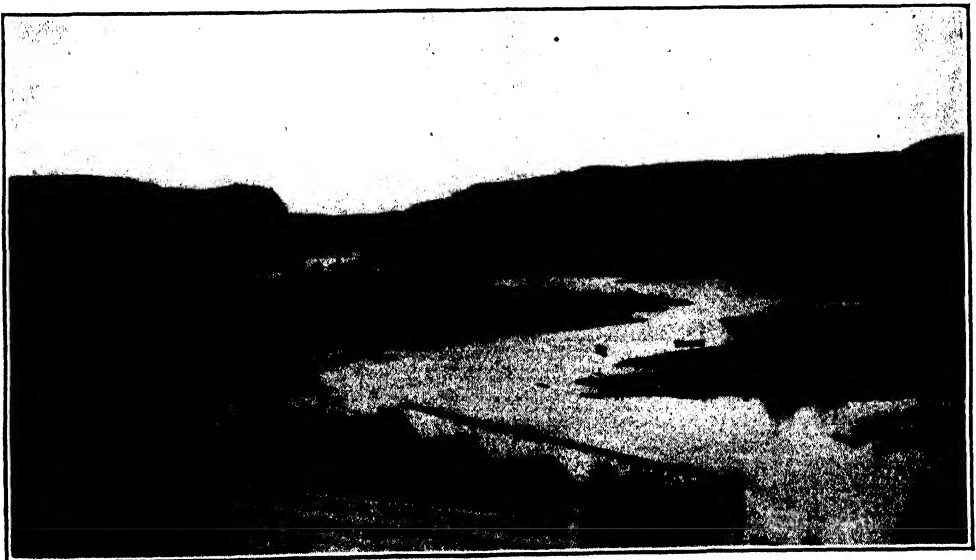
I deem it a very real pleasure and privilege to send a word of greeting to the officials of the Cuban Exposition. I am certain that this Exposition will contribute greatly toward making the products of Cuba better known throughout the world.

The traveler through the countries of the Caribbean cannot help but be deeply impressed with the splendid progress that is being accomplished in every field of endeavor. In no part of the "American Mediterranean" do we find greater activities than those that extend eastward and westward for seven hundred miles—through the Republic of Cuba. Habana, Santiago, and a score of other ports are receiving and dispatching ships of trade from all parts of the world. On entering Habana harbor at break of day a short time ago our ship was one of seven vessels from seven foreign ports awaiting inspection. This incident typified business; and that which is true in the country's chief port is more or less the condition of other centers of import and export trade. To be more exact, last year Cuban commerce with the world was valued at more than \$724,-

500,000—an amount exceeded only twice, and then in quite unusual years.

One of the greatest agencies for progressive development that any country can possess is modern communication. In this respect, Cuba stands among the most advanced nations. In addition to ample railway systems, millions of dollars are being made available for highway construction. The business men of Habana have combined their energies to make that city a center in which airships in mail and passenger services will call and from which base, services will radiate to leading cities of the Americas. Indeed, one might enumerate a long series of upbuilding factors that foreshadow a great future for the "*Pearl of the Antilles*."

In conclusion, let me reiterate my deep interest in the Exposition and my belief that this display of products will serve a great cause—the cause that brings Cuba more and more into the marts of trade and as a rendezvous for the energetic tourist who is now appreciating the glories of the tropics and is responding liberally to the call that Cuba sends to the world.



Yumuri River, showing entrance to Yumuri Valley

Havana Correspondence

Three factors in the economic life of this Republic have stood out prominently during the past month. The first has been an evident determination on the part of the Secretary of Public Works, to carry through his program of stupendous improvements all over the Island, in spite of a serious shortage of funds with which to make even a beginning.

The second has been the wholesale deportation of labor agitators who have infested this Republic for several years. General Machado and his cabinet are men of decided ideas and determined purpose and they have been very firm in the handling of this problem. There is no country in the world where greater consideration is given to all honest labor. We need workers and home-seekers, but we have no room for professional agitators who thrive on the misfortunes of others.

The third and really vital problem that demands solution is the critical situation in which we find the Sugar industry, as the result of the low price at which this commodity is selling and has sold in the markets of the world for over a year. During this time sugar of .96 polarization has remained at an average of $2\frac{1}{2}$ c. per lb. Ten years ago, with comparatively cheap labor that prevailed in all parts of the world, sugar might have been made in Cuba and sold at $2\frac{1}{2}$ c. with a small profit. But today, under present conditions, with sugar at $2\frac{1}{2}$ c., out of the one hundred and eighty-five Centrals not more than a dozen can possibly break even, let alone make a profit.

The others will go into bankruptcy, unless some way is speedily found to either increase the price or materially lower the cost of production. The Colono, or grower of the cane, may cut what cane is now standing, in order to pay outstanding debts of the past year, but he will never replant, or put another field in cane under present conditions, since it would mean a heavy financial loss. Even as the matter stands, the majority of the Colonos are on the verge of rebellion. It is a custom of cane planters in Cuba to sign contracts with the Centrals for a period of years to grow and deliver cane at a given ratio, which usually averages five arrobas, or 125 lbs., of sugar for every 100 arrobas, or 2,500 lbs., of cane delivered. When cane is scarce this contract may stipulate six arrobas, or even more, for each 100 of cane.

Most of the present contracts between Colonos and mills were made several years ago, when raw sugar sold at 4c. per lb. At that price there was a fair profit for both Colono and Central, but at $2\frac{1}{2}$ c. there is a loss for both. The Colonos of Camaguey have notified the mills that they will deliver no more cane at the ratio in force last season. A larger share of sugar is demanded all over the Island. The mills argue that since there is an unavoidable loss, the Colono should abide by his contract and assume his share of the burden. The Colono answers that he cannot and will not, that he is already in debt, and can borrow no more money with sugar selling at $2\frac{1}{2}$ c. And so we have a deadlock between cane planters and sugar makers at the beginning of the grinding season, which, unless a compromise is soon reached, will result in economical chaos throughout the entire Republic, with approximately a million tons of last year's crop still on hand,—the outlook is decidedly dubious.

There is no denying that the sugar industry of Cuba is passing through a serious crisis. Many are the remedies suggested. Some claim that the acreage must be cut down and production limited. But it is feared that if we diminish our output of sugar other countries will step into the breach and steal our market. If Cuba ceases to make sugar the beet sugar industry will increase their acreage, and thus supply the deficiency.

Cuba today produces over 25 per cent. of all the sugar consumed in the world. It is the Island's one great industry, and owing to soil and favorable climatic conditions, we can make sugar at a lower cost than any other country. But the advantages bestowed on us by a bountiful nature are offset through the tariff imposed by the United States. Cuba, if permitted, could put a beautiful pearl-white sugar on the American breakfast table at 40. a pound. But this would do away with the American sugar refineries and greatly discourage the western sugar beet growers. Both of these demand tariff protec-

tion and President Coolidge says they must have it at any cost. And they will, at the cost of the cane growers and sugar makers of Cuba.

The majority of our thinking men, we believe, have been forced to the conclusion that Cuba must find some way to lower the cost of production or quit the game. Reduction in cost cannot be made at the expense of labor without bringing on a revolution, and no one desires it.

Our growers of cane in the past have made one serious mistake in permitting cane to be cut year after year without renewing the plant food taken from their fields of successive cropping. When sugar sold at 4c. they could have very easily replenished their soils, with fertilizers, and thus avoid the necessity of looking for new lands. Many soil experts claim that they can do it today; in fact, that they cannot afford to do without fertilizers of some kind at any time.

The writer remembers when Prof. Earl, ex-Director of our Experimental Station, stated that he could take any worn-out field in Havana Province and by growing three successive crops of cowpeas or velvet beans, and turning them under to rot, he could bring the fertility of the soil up to its natural or original virgin productivity in one year's time. Sugar cane is a greedy feeder of nitrogen and humus. Green manure furnishes these at a very low cost. A small amount of phosphate and wood ashes, or potasa, added to the humus and nitrogen of the turned-under legumes will give a degree of new life to old fields that is almost incredible. New lands suitable for sugar cane are not plentiful in Cuba, and the renewal of old fields, by building up their fertility, along intelligent lines, will soon begin through necessity.

Greater and more permanent relief to the cane planters will come through the gradual substitution of machinery for hand labor, which is the most expensive factor in the cost of production. The cost of plowing and cultivation of cane fields has already been greatly reduced by the introduction of the tractor. The cost of loading cane and conveying it to the railroad or mill has been made infinitely lighter by special motor cane trucks, of which several types are today working successfully.

The implement most desired is a machine that will cut, top and handle cane as we do wheat in the fields of Dakota and the West. This is promised us in the near future. For several years past, engineers in the United States have been endeavoring to build a practical cane cutter, and believe they have solved the problem. A machine for this purpose, built in New York, will be shipped to Cuba for field trial this coming Spring.

A successful cane cutting, stripping and topping machine will revolutionize the sugar industry of the Island, and save it from disaster as nothing else can.—GEORGE RENO.



Parque de Maso, Manzanillo, Cuba



The Sun Never Sets on the Red Cross

While some of the largest operations in American Red Cross history have been undertaken in the United States in the very recent past, it has in the last few years also served in nearly half the countries of the globe.

Little groups of Americans living or serving all over the world, including missionaries, have contributed materially to the ability of the American Red Cross to reach into the utmost corners of the earth to alleviate distress. These isolated Americans regard the Red Cross as a link with their homeland, and most of them are ardent members of its organization, always ready to assist in making it effective regardless of where it may be called upon to serve.

It is largely due to this world-wide organization that it is possible to say that, "the sun never sets on the American Red Cross."

The Annual Roll, from November 11 to 26, is an appeal for membership, and for a renewal of the pledges of those already members. Significant of the attitude of Americans in faraway places is the contribution from Americans in Bluefields, Nicaragua, in the last Roll Call, while another group in Madagascar, comprising all the Americans in that distant island, subscribed 'solidly for memberships.

Philosophy of Law

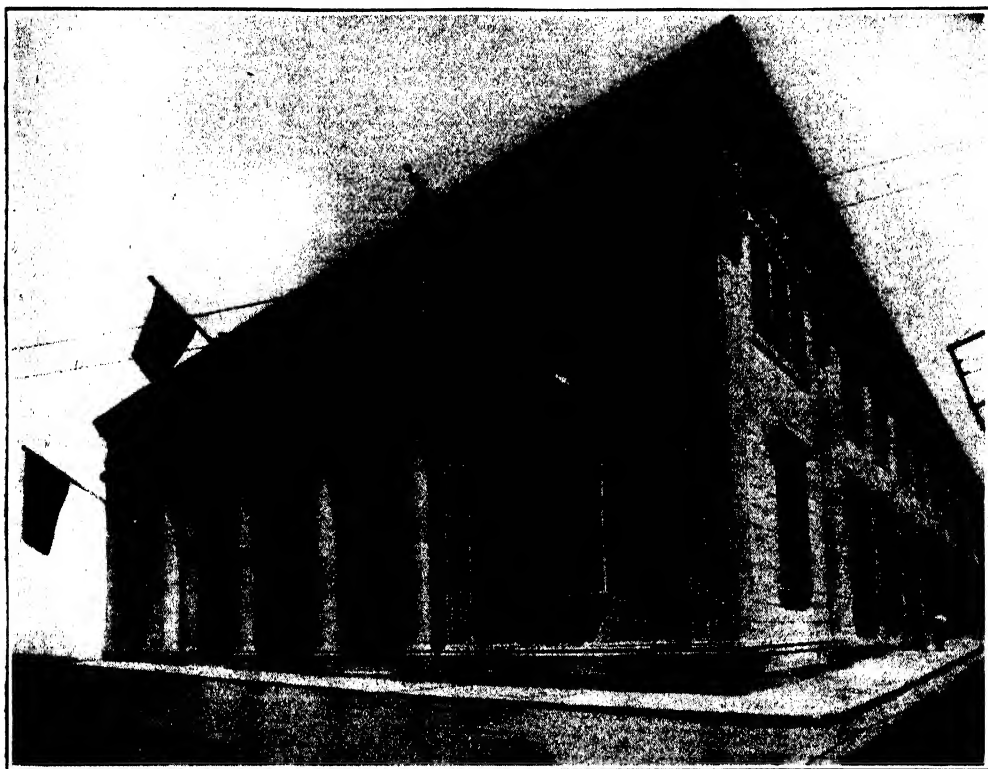
The first volume of a monumental forensic work entitled *Filosofía del Derecho* (*Philosophy of Law*), by Dr. Mariano Aramburo, the eminent Cuban philosopher and jurisconsult, has lately been published by the Instituto de las Españas of New York. The philosophy of law, defined by Doctor Aramburo as the study of the primary, universal, and invariable principles of law, is separated by the author into three main divisions, each to be the thesis of a volume, as follows: First, law as a whole, its idea, essence, purpose, and life; second, the integral elements of the juridical order; and third, the diverse subdivisions of law. Because of its erudition, breadth of view, organic unity, logical presentation, and beauty of style this work constitutes one of the most important contributions made in many years to the philosophy of law. The Instituto de las Españas is greatly to be congratulated on the publication of such an epoch-making work.

League Against Cancer

The first meeting of the Board of Patrons of the League against Cancer was held recently in Habana. The campaign proposed by this league, which was founded in the city of Habana by virtue of a resolution adopted by the Sixth National Medical Congress, is to collect and distribute all possible information regarding cancer; promote the study and investigation of the causes of this disease; and also to contribute and help in the treatment of cancer patients among the poorer classes.

Money Deposits Required of Contractors for Work in Cuba

The secretary of public works has ordered that contractors for work under the Department of Public Works projects shall deposit a sum of money as guaranty of good faith before the contract shall become effective, the amount of the deposit to be fixed at the discretion of the department and to vary according to the sum involved in the contract. (Commercial Attaché Carlton Jackson, Habana.)



The New Building of The National City Bank, Havana, Cuba

The National City Bank, Havana

The opening of The National City Bank's building in Havana last May was a notable event for several reasons. It was in a sense the unveiling of a magnificent monument giving enduring evidence of the confidence which The National City Bank has in Cuba and its future; it furnished the Island Republic with its finest example of banking architecture, and the ceremonies attending the opening brought together a most brilliant assembly of the distinguished Cubans from General Gerardo Machado on, and including representatives from the highest business, financial, clerical and social circles.

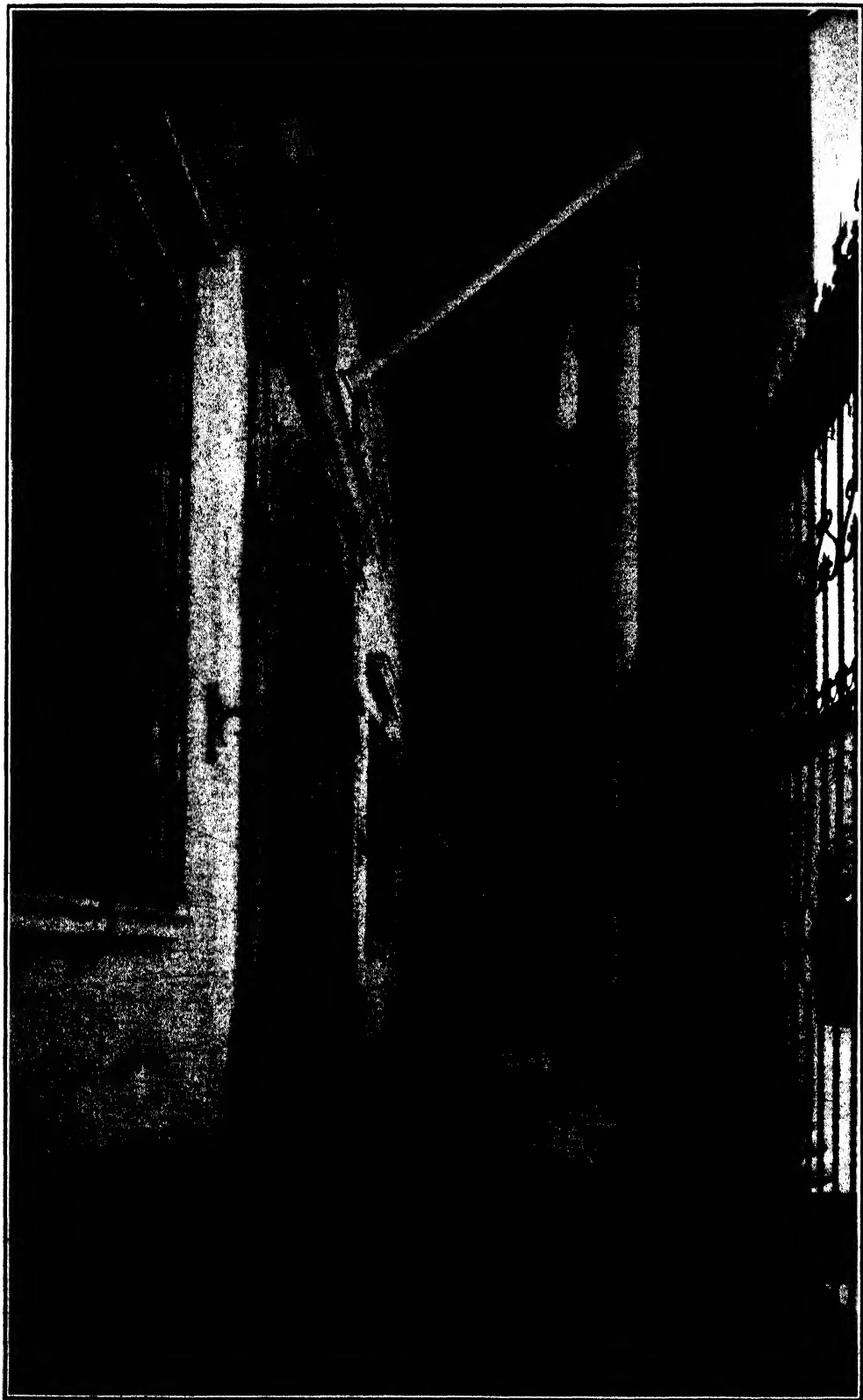
The National City Bank itself was represented by an important delegation from the head office headed by President Mitchell and including Gordon S. Rentschler, Vice-President and Assistant to the President; Lee E. Orwell, Vice-President and Executive Assistant; Hugh B. Baker, Vice-President City Company; Pierpont V. Davis, Vice-President City Company, and George E. Roberts, Vice-President, who with Joseph H. Durrell, Vice-President in

charge of Cuban branches, were the hosts at the celebration that marked the event.

The actual moving from the old building in Cuba Street to the new building which stands at the intersection of Presidente Zayas (O'Reilly), Compostela and Progreso Streets, took place at six o'clock in the morning, Saturday, May 16, when armored trucks of the Havana Terminal Railroad, guarded by mounted police, transferred the bank's funds and securities amounting to more than twenty-five million dollars.

Representatives of the press were given a preview of the new building on the afternoon of May 15th, and later they were guests at a buffet supper.

Sunday, May 17th, at 10:30, the Most Reverend Manuel Luiz, Archbishop of the Havana Diocese, attended by high Church dignitaries, bestowed his blessing upon the new building and on every department. Sunday evening a great reception was given at which Mr. Mitchell and Mr. Durrell, heading the list of hosts, welcomed the most prominent persons in Havana finan-



The Patio and Main Entrance of The National City Bank's new Havana Building

cial and social circles. After the reception the guests were served with a buffet supper.

The new building is a beautiful structure built along old Spanish colonial lines, which occupies an area of 2,100 square metres. It is built on the site of the old St. Catherine's Convent (Convento Santa Catalina). The exterior is faced on the three street fronts with native coral rock known as Jaimanitas stone, of which the cathedrals, forts and other old buildings which have withstood the ravages of time, are built.

At the main entrance, four great columns and a doorway feature of dark Italian marble and a loggia platform of native Capellania Dura lend beauty to the massive structure. The interior, especially the banking space, is excellently arranged for the most efficient service to the public. The tellers' cages are centralized in the middle of the large patio and the aisles surrounding them are flanked by commodious offices where the officers of the bank and the department managers may conveniently be interviewed.

The floor of the main banking room surrounding the tellers' cages is of dark Italian marble of three varieties arranged in an octagonal and diamond pattern. The colors are dark red, green and dark blue, each

streaked with white. In the offices flanking the central space the floors are of green terrazzo while the floor within the cages is of local cement tile, black and white.

The vestibule at the main entrance and the walls of the main banking space are constructed of native Capellania stone, creamy white in color, and this creamy whiteness extends through cornices, friezes, decorative columns and pilasters to what appears to be an old walnut ceiling, which is exquisitely decorated in a geometric pattern similar to the floor. Two great bronze chandeliers effectively illuminate the banking space.

The two-story vault, 30x20 feet in size, and constructed in the most modern and improved manner, has been provided. It has all the latest safeguards, including an observation space whereby all the under-surface of the vault is visible from the first floor. The first story of this vault is equipped with seventy-five compartment lockers for the use of the Bank, while the second story has 2,000 safety deposit boxes for the use of the public. The second story of the building is devoted entirely to working space and offices.

The doors and other cabinet work throughout the Bank are all of native mahogany.

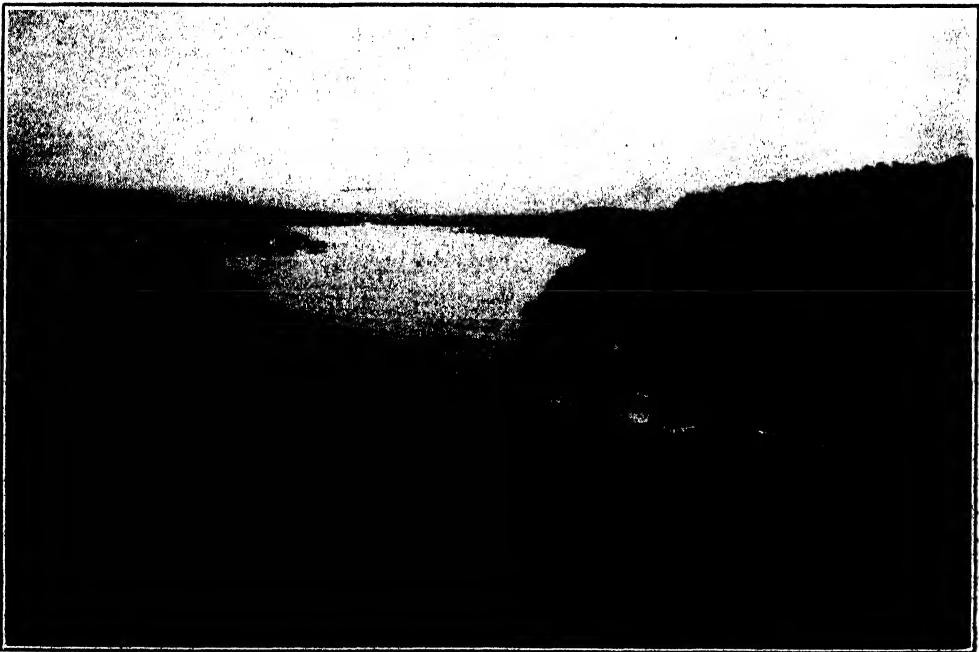


Two views of the main banking room, The National City Bank, Havana

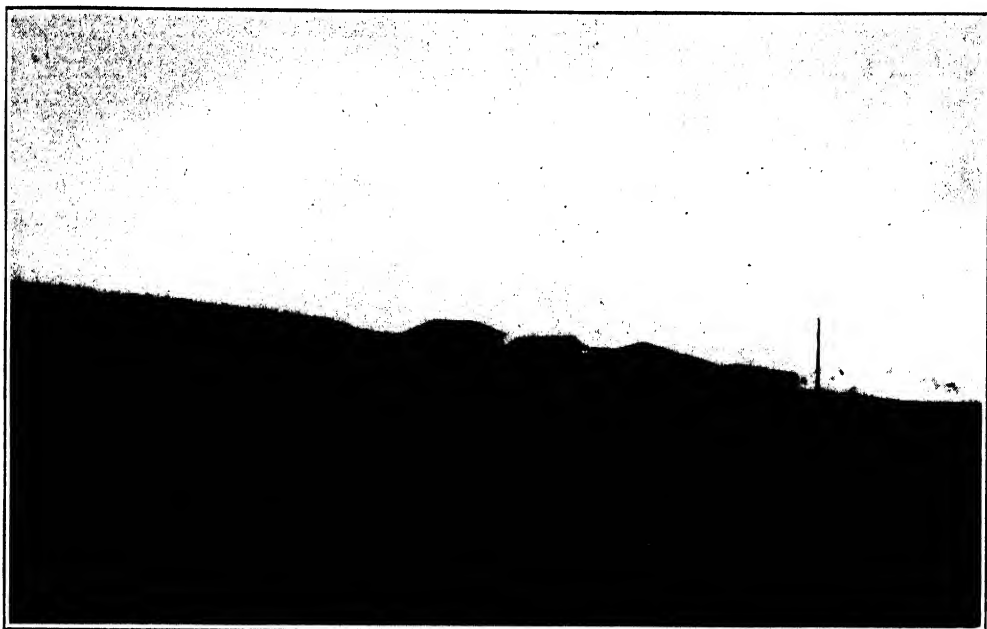
Some of Cuba's Harbors and Terminals



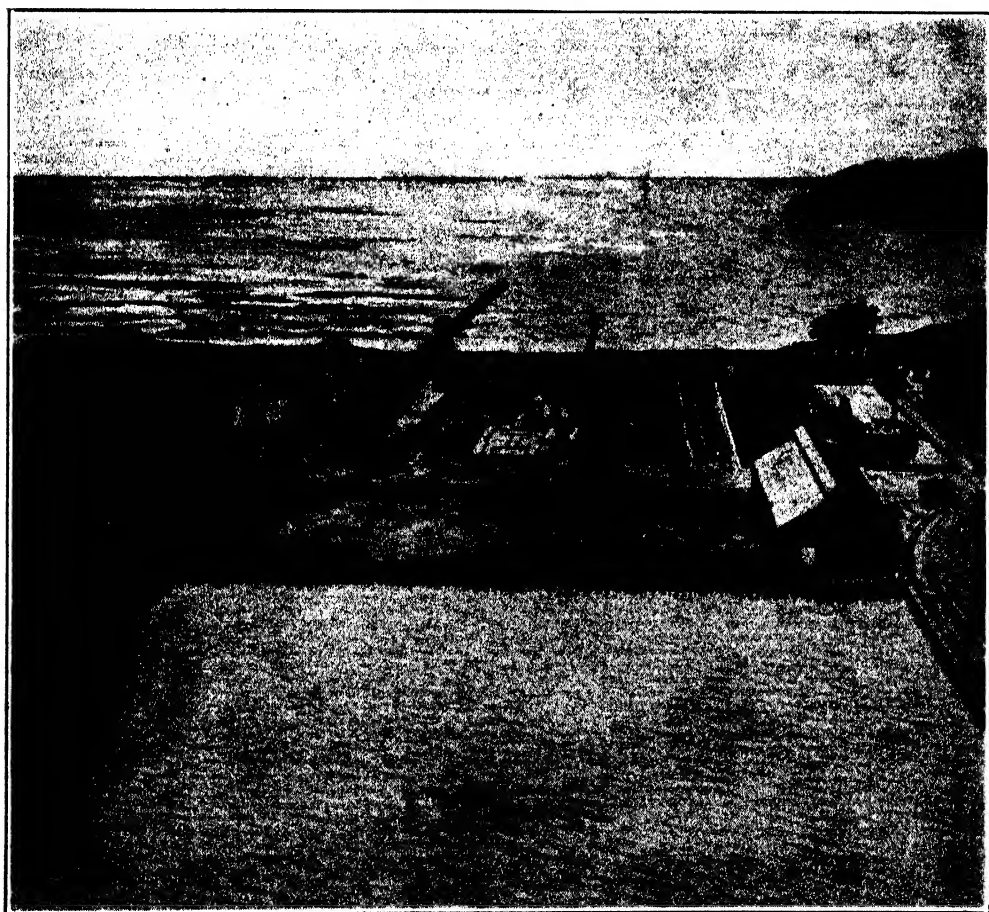
San Francisco Wharf, Havana



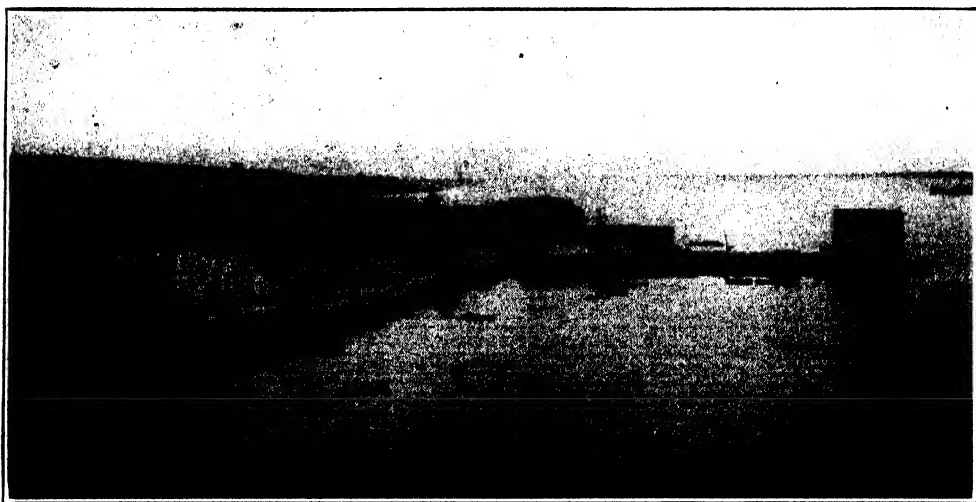
Entrance to Santiago Harbor, View from Morro Castle



Cuba Railway Terminal, Pastillillo Point



Docks and Warehouses at Isabela de Sagua



Matanzas Harbor

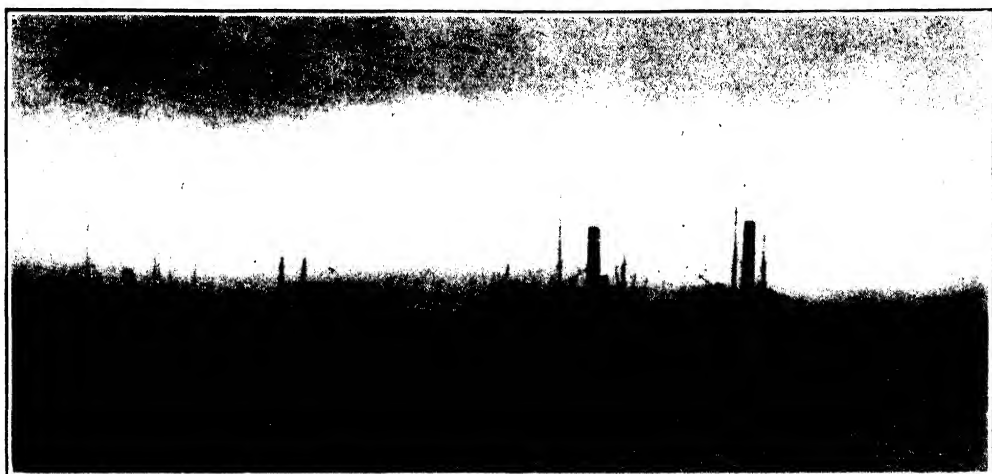


Puerto Tarafa, showing Docks and Warehouses

**Comparative Table Showing the Cuban National Debts from
September 30, 1924, to February 28, 1925**

According to figures from the Message of the Cuban President to Congress on April 6, 1925, the following table shows the comparative state of the national debts for the dates mentioned:

	Sept. 30, 1924	Feb. 28, 1925	Reduction
Foreign, 1904, Speyer & Co., 5 per cent.....	\$19,899,500	\$19,591,500	\$308,000
Foreign, 1904, Speyer & Co., 4½ per cent.....	14,539,000	14,534,000	5,000
Foreign, 1914, Morgan & Co., 5 per cent.....	8,005,000	7,864,600	140,400
Foreign, 1923, Morgan & Co., 5½ per cent.....	45,885,000	45,642,100	242,900
Interior, 1905, 5 per cent.....	8,497,700	8,448,200	49,500
Port Extension, 1917, 5 per cent.....	4,000,000	3,500,000	500,000
	<u>\$100,826,200</u>	<u>\$99,580,400</u>	<u>\$1,245,800</u>



Port of Manzanillo, Cuba



Cuban Fruits

United States Foreign Trade in Vegetables

M. A. Wulfert, Foodstuffs Division, Department of Commerce

The vegetables in the natural state which enter the foreign trade of the United States cover a wide range in variety and have a value running into several million dollars annually. The bulk of this vegetable movement occurs in the first six months of the year, with imports greatly exceeding exports.

VEGETABLE TRADE, FIRST HALF OF 1924 AND 1925

In the first six months of 1925 the imports of vegetables were valued at \$10,430,125 and the exports at \$5,274,294, compared with a value of \$7,218,980 for imports and \$5,899,322 for exports during a like period of 1924. The quantity and value of this trade is shown in the tables below.

UNITED STATES TRADE IN VEGETABLES, FIRST SIX MONTHS OF 1924 AND 1925

Vegetables	1924		1925	
	Quantity	Value	Quantity	Value
<i>Exports</i>				
Beans.....	bushels 278,027	\$991,897	222,124	\$946,828
Peas.....	bushels 42,365	198,570	26,527	135,258
White potatoes.....	bushels 1,353,316	1,686,941	1,144,744	1,168,864
Onions.....	bushels 407,278	565,017	210,170	405,772
Other vegetables.....	pounds 67,749,044	2,456,897	73,206,749	2,617,572
Total.....		5,899,322		5,274,294
<i>Imports</i>				
Beans.....	bushels 559,080	1,229,211	845,484	2,658,182
Peas.....	bushels 148,071	388,298	210,797	740,734
Chick-peas.....	pounds 4,225,727	190,575	4,829,168	234,821
Mushrooms.....	pounds 2,146,346	671,685	2,547,411	875,332
Truffles.....	pounds 14,469	34,999	26,737	30,576
Potatoes.....	bushels 193,200	502,701	218,619	366,956
Garlic.....	pounds 2,098,473	80,834	2,621,088	160,415
Turnips.....	pounds 62,676,278	320,881	64,341,650	266,241
Tomatoes.....	pounds 50,837,950	1,625,677	63,750,464	2,090,375
Onions.....	bushels 447,187	562,950	1,197,243	1,499,689
Other vegetables.....	pounds 32,243,063	1,611,169	27,944,790	1,506,804
Total.....		7,218,980		10,430,125

UNITED STATES IMPORTS OF VEGETABLES BY MONTHS, FIRST HALF OF 1925

Months	Tomatoes	Turnips	String Beans	Cabbage	Beets	Green Peas
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
January.....	9,009,784	29,773,881	283,648	146,526	58,735	221,906
February.....	7,301,604	15,489,171	215,175	291,709	148,156	634,190
March.....	10,673,766	12,425,308	233,330	850	228,206	1,965,681
April.....	22,771,912	5,772,905	372,641	.....	180,885	260,240
May.....	12,971,638	876,885	34,151	50	44,502	600
June.....	1,021,760	3,400	1,770	.....	490	340

Months	Other Fresh	Onions	Potatoes	Beans	Peas
	<i>Pounds</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
January.....	3,207,827	92,814	13,919	120,190	79,063
February.....	5,142,379	76,492	20,474	260,522	55,042
March.....	7,085,769	78,343	73,486	192,454	32,856
April.....	6,227,952	243,451	32,585	111,734	18,743
May.....	3,569,067	116,611	22,386	54,600	13,366
June.....	2,711,796	589,531	55,769	105,804	11,727

EXPORTS OF VEGETABLES BY MONTHS, FIRST HALF OF 1925

Months	Potatoes <i>Bushels</i>	Onions <i>Bushels</i>	Beans <i>Bushels</i>	Peas <i>Bushels</i>	Other Fresh <i>Pounds</i>
January.....	163,483	34,278	93,631	9,178	5,244,825
February.....	144,099	57,409	31,918	3,233	5,680,838
March.....	167,231	47,607	28,860	5,237	11,410,143
April.....	163,045	27,731	21,890	1,841	13,886,535
May.....	137,158	21,481	19,366	4,431	18,517,782
June.....	369,728	21,664	26,459	2,607	18,466,626

BEANS HEAD LIST OF IMPORTED VEGETABLES

Beans, tomatoes and onions are the most important of the important vegetables. Imports of beans in the first six months of 1925 amounted to 845,484 bushels, which was 286,404 bushels more than imports in the corresponding period of 1924. Japan supplies almost half of the beans brought into the United States. France is the second largest source of supply, but all the beans from France are not grown in that country. Beans from Rumania, Austria and other eastern European countries are sent to Marseilles and are there graded and shipped to various destinations. The imports of beans from Madagascar, and a considerable quantity of those from Chile and Italy, are lima beans.

United States imports of peas, which amounted to 210,797 bushels and 148,071 bushels in the first half of 1925 and 1924, respectively, originate mainly in Canada and the Netherlands.

EGYPT AND SPAIN LEAD IN SUPPLYING ONIONS

Onions arrive in the United States from many countries, chief of which are Spain, Egypt, Chile, Mexico and Canada, with smaller quantities coming from Bermuda, Cuba and the Canary Islands. They are also imported in considerable quantity from England, but these are for the most part transshipments of Spanish and Egyptian onions. Onions from Egypt showed a remarkable increase from 127,461 bushels in the first six months of 1924 to 592,620 bushels in the first six months of 1925. Spain furnished the United States 309,401 bushels in the 1925 period, compared with 222,200 bushels in the 1924 period, while the Netherlands shipped 60,479 bushels to the United States in the first half of 1925, compared with but 39 bushels in the first half of 1924. Shipments of onions from Egypt occur mainly in April, May, June and July, while the heaviest shipments from Spain begin in July and reach their peak in September, although large quantities are received from Spain throughout the year. The total imports of onions amounted to 1,197,243 bushels in the first half of 1925, as contrasted with 447,187 bushels in the first half of 1924.

Canada and Bermuda furnish practically all the imports of white potatoes, Canada supplying 152,770 bushels and Bermuda 50,803 bushels in the first half of 1925, compared with 91,800 bushels from the former and 81,490 bushels from the latter source in the first half of 1924, out of a total import of 218,519 bushels in the first half of 1925 and 193,200 bushels in the 1924 period.

GREEN VEGETABLES SUPPLIED LARGELY BY CANADA, CUBA, BERMUDA AND MEXICO

The most important of the winter-grown vegetables shipped to the United States are tomatoes, string beans, green peas, cabbage, beets and turnips. These are imported chiefly from Canada, Mexico, Bermuda, Cuba and other of the West Indies. A decrease is noted in the imports of all of these vegetables, with the exception of tomatoes, turnips and peas. For the first six months of 1925, as compared with the corresponding period of 1924, imports of string beans dropped from 1,520,408 to 1,140,715 pounds and garden beets from 1,078,987 to 660,914 pounds, while tomato imports rose from 50,837,950 pounds in the 1924 period to 63,750,464 pounds in the 1925 period, turnips, practically all from Canada, rose from 62,676,278 to 64,341,550 pounds, and green peas from 2,860,425 to 3,082,957 pounds.

The value of other vegetables imported (consisting chiefly of cucumbers, squashes,

peppers, eggplant and celery) dropped from \$1,611,169 in the first half of 1924 to \$1,511,431 in the first half of 1925.

The bulk of the string beans and green peas comes from Cuba, garden beets come from Bermuda and Canada, tomatoes from Mexico (with smaller lots from Cuba) and the other fresh vegetables are supplied in large quantity by Cuba, Mexico, Bermuda, Hongkong and Italy.

The development of truck gardening on a large scale on the west coast of Mexico is responsible for the increased shipments of fresh vegetables from that country to the United States. These vegetables for the most part arrive on the markets of the United States at a time when domestic vegetables are scarce and hence do not compete with them.

IMPORTS OF VEGETABLES, BY COUNTRIES

The following table shows the amount of vegetables supplied to the United States by the various countries:

UNITED STATES IMPORTS OF VEGETABLES, BY COUNTRIES, FIRST SIX MONTHS OF 1924 AND 1925

Countries	Onions		White Potatoes		Beans		Peas	
	1924 <i>Bushels</i>	1925 <i>Bushels</i>	1924 <i>Bushels</i>	1925 <i>Bushels</i>	1924 <i>Bushels</i>	1925 <i>Bushels</i>	1924 <i>Bushels</i>	1925 <i>Bushels</i>
Canada.....	468	20,756	91,800	152,770	6,604	23,926	93,782	109,500
Bermuda....	8,876	8,095	81,490	50,669	58	.....	.....	.....
Mexico.....	28,537	17,774	1,623	4,766	9,767	2,300	12	812
Italy.....	4,970	6,480	.....	.....	9,760	37,308	36	264
Netherlands.	40	60,480	923	.....	8,196	18,857	21,566	28,591
Spain.....	222,200	309,401	.....	.....	162	88	.....	.....
Cuba.....	6,120	1,696	4,793	8,585	379	933	.....	.....
Japan.....	.....	222	10	.....	329,215	365,387	13,006	7,055
Madagascar.	.....	.....	.....	.....	48,230	88,453	.....	.....
Egypt.....	127,462	592,620	11,196	.....	169	284	.....	.....
Chile.....	30,385	79,117	5	.....	4,701	20,641	3,824	456
France.....	.....	.....	.....	.....	56,282	109,068	3,418	6,867
Other.....	18,129	100,602	1,360	1,829	85,557	178,239	12,427	57,252
Total.....	447,187	1,197,243	193,200	218,619	559,080	845,484	148,071	210,797

UNITED STATES IMPORTS OF FRESH VEGETABLES, BY COUNTRIES, FIRST SIX MONTHS OF 1924 AND 1925

Countries	String Beans		Green Peas		Cabbage	
	1924 <i>Pounds</i>	1925 <i>Pounds</i>	1924 <i>Pounds</i>	1925 <i>Pounds</i>	1924 <i>Pounds</i>	1925 <i>Pounds</i>
Cuba.....	1,148,984	990,367	.....	1,479	16,920	.....
Mexico.....	97,499	23,067	1,565,378	2,935,878	.....	.....
Bermuda.....	111,488	116,158	50	.....	.....	.....
Netherlands.	.....	.....	624,314	.....	3,028,834	408,265
Canada.....	.....	.....	159,755	145,600	1,100	10,050
Other.....	162,437	11,123	510,928	.....	1,400	20,820
Total.....	1,520,408	1,140,715	2,860,425	3,082,957	3,048,254	439,135

Countries	Beets other than Sugar Beets		Tomatoes		Turnips	
	1924 <i>Pounds</i>	1925 <i>Pounds</i>	1924 <i>Pounds</i>	1925 <i>Pounds</i>	1924 <i>Pounds</i>	1925 <i>Pounds</i>
Cuba.....	.....	.....	4,141,534	3,526,179	.....	.....
Mexico.....	.....	.....	43,573,543	58,103,006	.....	.....
Bermuda.....	984,924	606,624	6,256	200	22,951	17,284
Netherlands.	.....	.....	.....	.....	.....	.....
Canada.....	84,510	44,340	243,950	329,767	62,653,027	64,324,116
Other.....	9,553	10,010	2,872,667	1,791,312	300	150
Total.....	1,078,987	660,974	50,837,950	63,750,464	62,676,278	64,341,550

UNITED STATES EXPORTS OF VEGETABLES

The table below shows the volume and destination of most of the vegetables exported from the United States:

UNITED STATES EXPORTS OF FRESH VEGETABLES, FIRST SIX MONTHS OF 1924 AND 1925

Countries	White Potatoes		Beans		Peas	
	1924	1925	1924	1925	1924	1925
	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
Canada.....	314,602	433,226	6,148	6,643	9,419	6,026
Panama.....	78,809	108,532	4,556	5,774	1,406	830
Mexico.....	114,864	99,507	6,854	7,882	1,404	487
Cuba.....	742,356	355,335	212,809	169,446	21,392	12,354
Honduras.....	9,902	9,854	7,930	6,320	756	716
Other.....	92,783	138,290	39,730	26,059	7,988	6,114
Total.....	1,353,316	1,144,744	278,027	222,124	42,365	26,527

Countries	Onions		Other Fresh Vegetables	
	1924	1925	1924	1925
	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
Canada.....	135,374	35,885	63,869,982	69,105,345
Panama.....	17,300	18,459	1,103,046	1,503,771
Mexico.....	19,507	16,066	986,662	834,822
Cuba.....	186,282	104,130	412,462	321,412
Honduras.....	4,302	6,289	47,746	59,191
Other.....	44,513	29,341	1,329,146	1,382,208
Total.....	407,278	210,170	67,749,044	73,206,749

NEIGHBORING COUNTRIES PROVIDE MARKETS FOR UNITED STATES EXPORTS

The principal markets for vegetables shipped from the United States are Canada, Mexico, Central America and the West Indies. These exports consist largely of beans, peas, white potatoes, onions and other fresh vegetables, white potatoes and beans being the most important items.

Exports of white potatoes fell from 1,353,316 bushels in the first half of 1924 to 1,144,744 bushels in the first half of 1925. This drop was due mainly to the inroads made on the market in Cuba by potatoes from the eastern Provinces of Canada, which were sold at a lower price than were the potatoes from the United States. Exports of potatoes from the United States to Cuba decreased from 742,356 bushels in the first half of 1924 to 355,335 bushels in the first half of 1925. Canada—particularly the central and western border Provinces—Mexico and Panama are also good markets for potatoes from the United States.

CUBA OUR LEADING MARKET FOR BEANS

Cuba purchases more than 75 per cent. of the beans exported from the United States, while the other West Indies and the Central American countries take almost all the rest of the exports. A drop in total exports of beans from 278,027 bushels in the first half of 1924 to 222,124 bushels in the first half of 1925 may be attributed to decreased shipments to Cuba. Competition with some of the European countries, which may become stronger as these countries increase their production, and with China and Japan is becoming a more important factor in our trade with Cuba.

During the first half of 1924 and of 1925, respectively, exports of peas dropped from 42,365 to 26,527 bushels, and onions dropped from 407,278 to 210,170 bushels, but exports of other fresh vegetables rose from 67,749,044 pounds to 73,206,749 pounds. Cuba, Canada, Mexico and Central America, in the order named, take the bulk of these exports.—*Commerce Reports*.

Cuban Commercial Matters

Light Truck and High-Priced Car Sales Increase

Continued depression in Cuba is still reflected in reduced automotive sales; aside from the low price of sugar, which is the underlying cause, the nationalization of the automobile registration system and the failure to fix the amount of the license fee until early in September are considered contributing factors. Low-priced car sales for the first eight months of 1925 were considerably lower than for the same period of 1924. August was the poorest month of the year. The sale of medium-priced cars declined during the quarter. During June, high-priced car sales were stimulated.

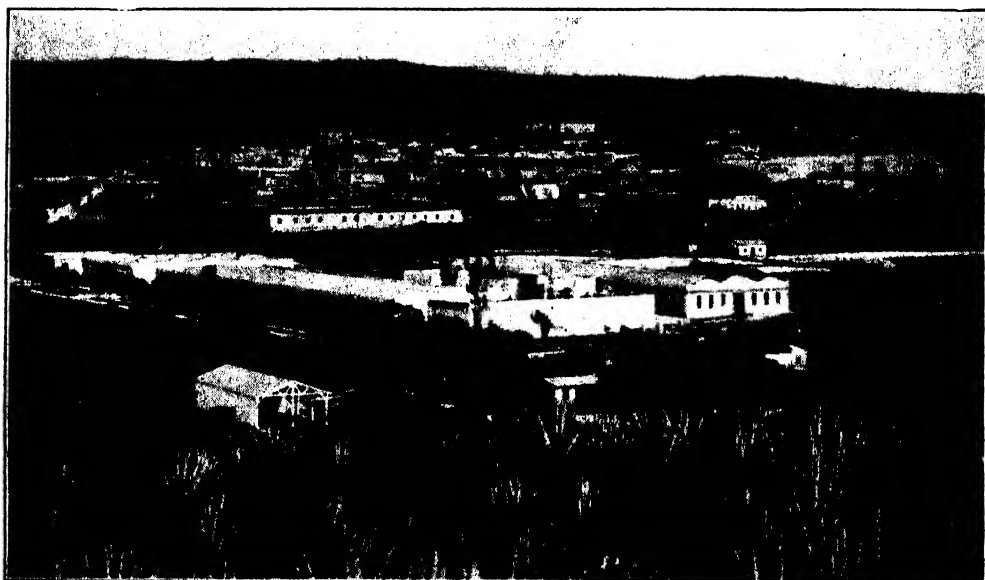
Light trucks continue to sell well, as is evidenced by the fact that approximately 20 per cent more of them were sold during the first eight months of 1925 than during the same period of 1924. Heavy truck sales, however, continue slow, largely because of the uncertainty attached to the new road-building program. It is expected, however, that once the construction work

gets under way, sales of heavy trucks will increase.

The market for parts and accessories continues dull. One company, which had undertaken wholesale distributing in addition to its retail trade, recently called in its salesmen. Confidence is expressed that when the public-works program is inaugurated, the automotive market will improve. Agencies express the opinion that an improvement might be expected during October or November. (Assistant Trade Commissioner O. R. Strackbein, Habana.)

United States Textile Exports

Out of the total 1924 exports to Latin America and the West Indies, Cuba's share was 25 per cent. of the manufactures of miscellaneous fibers, 41 per cent. of the wool manufactures and 28 per cent. of the silk manufactures, according to reports of the United States Department of Commerce.



Matanzas Cordage Co.

General Depression in Eastern Cuba

Consul F. R. Stewart, Santiago, reports to the Department of Commerce that business generally in the eastern part of Cuba is bad. Trade in all lines in Santiago became stagnant as a result of the gradual but steady decrease in the price of sugar since last year. Strikes in the building trades and the prolonged "passive resistance" strike of the employes of the railroad company added to the general depression. The commercial life of Santiago is more closely connected with the sugar industry, probably, than any other Cuban port, and the restricted purchasing power of the people, which began to show itself early in 1925, still is manifest.

RESULTS OF CANCELLATION OF PLANS FOR NEW CONSTRUCTION

The cancellation of plans for new construction affected seriously the lumber industry of this city. Luxury articles, such as automobiles, pianos, etc., were dispensed with and sales practically ceased. Dry goods merchants report that purchases of costly materials for dresses and other wearing apparel are being passed over in favor of cheaper goods serving the same purpose. Several concerns importing food-stuffs are reported to have sold goods below cost in order to acquire cash with which to meet their maturing bills.

PREDICTED IMPROVEMENTS IN BUSINESS NOT MATERIALIZED

At the end of June business men in close touch with the situation believed that there was a slight improvement, which indicated that persons in all walks of life are now adjusting their living conditions to the new order of things brought about by the low price of sugar compared with former years, and that returning confidence would bring with it a corresponding improvement in business. The predicted revival, however, has not materialized. To the contrary, unemployment has increased to such an extent that if the proposed public works are not started at an early date there will be considerable distress throughout the surrounding country districts.

Diario de la Marina

Diario de la Marina, one of the best and oldest newspapers in the city of Habana, recently added to its equipment a rotary printing press carrying 64 pages. This press prints 70,000 copies per hour. Each edition of the *Diario de la Marina*, without counting the afternoon edition, consists of 32 pages, each of which is now composed of 8, instead of 6 columns, as previously.



Cuban Tobacco Farm

Traffic Receipts of Cuban Railroads

Earnings of the United Railways of Havana

<i>Weekly Receipts:</i>	1925	1924
Week ending September 26.....	£58,606	£58,750
Week ending October 3.....	56,562	65,719
Week ending October 10.....	53,159	58,002
Week ending October 17.....	59,609	57,629

Earnings of The Havana Central Railroad Company

<i>Weekly Receipts:</i>	1925	1924
Week ending September 26.....	£11,760	£12,392
Week ending October 3.....	11,602	12,436
Week ending October 10.....	11,905	12,783
Week ending October 17.....	11,658	12,171

Havana Electric Railway, Light & Power Company

	MONTH OF AUGUST		MONTHS TO AUGUST 31	
	1925	1924	1925	1924
Operating revenues.....	\$1,244,357	\$1,189,029	\$10,058,966	\$9,386,803
Operating expenses and taxes.....	685,668	636,817	5,244,743	4,831,795
Net revenues.....	558,689	552,212	4,814,223	4,555,008
Other income.....	38,199	27,224	271,663	222,214
Total income.....	596,888	579,436	5,085,886	4,777,222
Interest charges.....	87,660	89,946	713,356	729,244
INCOME, after deducting taxes and interest charges.....	509,228	489,490	4,372,530	4,047,978
Sinking fund requirements.....	26,976	27,278	220,324	210,058
Balance of income.....	482,252	462,212	4,152,206	3,837,920

Prevailing Prices for Cuban Securities

As quoted by Lawrence Turnure & Co., New York

<i>Securities:</i>	<i>Bid</i>	<i>Asked</i>
Republic of Cuba Interior Loan 5% Bonds.....	93	94
Republic of Cuba Exterior Loan 5% Bonds of 1944.....	100½	100½
Republic of Cuba Exterior Loan 5% Bonds of 1949.....	95½	98
Republic of Cuba Exterior Loan 4½% Bonds of 1949.....	—	93¼
Havana City 1st Mtge. 6% Bonds.....	100	110
Havana City 2nd Mtge. 6% Bonds.....	—	100
Cuba Railroad Preferred Stock.....	87	89
Cuba Railroad 1st Mtge. 5% Bonds of 1952.....	87	87½
Cuba Company 6% Debenture Bonds.....	84	90
Cuba Company 7% Cumulative Preferred Stock.....	95	—
Havana Electric Ry. Co. Cons. Mtge. 5% Bonds.....	95	96
Havana Electric Railway, Light & Power Co. Preferred Stock.....	112	115
Havana Electric Railway, Light & Power Co. Common Stock.....	230	240
Cuban-American Sugar Co. Preferred Stock.....	92½	96½
Cuban-American Sugar Co. Common Stock.....	23	23¾
Guantanamo Sugar Co. Stock.....	4¾	5

Cuba Co.'s Annual Report

The report of Cuba Company and its subsidiaries for the year ending June 30 shows net earnings of \$9,735,944 from railroad operation and of \$486,369 from sugar mill operation. Gross income from all sources was \$10,892,596. Interest, taxes and miscellaneous charges were \$4,317,616.

Total net income was \$6,789,679. Surplus for the year was \$4,523,222, from which dividends of 175,000 on the preferred and \$2,560,000 on the common stock of the company were paid, leaving a balance of \$1,788,222, which brought the surplus at the end of the year to \$35,135,040.

CONSOLIDATED BALANCE SHEET

The following table summarizes the consolidated income and profit and loss account of the company and its subsidiaries for the year:

Gross revenue from operations.....	\$34,571,903
Operating expense.....	24,555,505
Net operating revenue.....	\$10,016,398
Other income.....	876,197
	<u>\$10,892,595</u>
Interest, amortization and taxes.....	4,317,615
Net income.....	\$6,574,980
Subsidies from Cuban government.....	214,699
	<u>\$6,789,679</u>
Less dividends on Cuba R.R. preferred.....	600,000
	<u>\$6,189,679</u>
Cuba Co.'s proportion of cons. surplus, July 1, 1924.....	\$33,346,818
Cuba Co.'s proportion of cons. surplus for year.....	4,523,222
	<u>\$37,870,040</u>
Total.....	
Less dividends—	
Preferred.....	\$175,000
Common.....	2,560,000
	<u>2,735,000</u>
Cuba Co.'s proportion of cons. surplus June 30, 1925.....	<u>\$35,135,040</u>

Total assets as of June 30, 1925, were \$144,054,696, including current assets of \$13,225,194, property investments of \$125,155,794, deferred charges of \$4,741,423, and miscellaneous items of \$932,285. Current liabilities were \$5,014,660, indebtedness to the Cuban government \$2,500,000, and deferred credits \$530,492. The funded debt was \$17,397,128. Capital stock amounted to \$28,588,575.

As explained in the report of President H. C. Lakin, the Cuba Company owns 367,189.5 shares of the preferred stock of the Consolidated Railroads of Cuba, out of 400,000 shares issued, and 243,927.5 shares of the common out of 400,000 shares issued. Consolidated Railroads of Cuba owns all the common shares of the Cuba R.R. Co., practically all the common stock of the Cuba Northern R.R., and all the stock of Camaguey & Neuvas Railway, which is being consolidated with the Cuba Railroad.

Cuba Company also owns all the stock of Compania Cubana, which owns and operates Centrals Jobabo and Jatibonico and their lands. These mills during the past season made 822,149 bags of sugar. As Compania Cubana's fiscal year ends December 31 the report covers only six months of that company's operations, during which it is stated that the mills made a profit. The company also has extensive land holdings aside from its railway and sugar properties.

The officers of the Cuba Company are H. C. Lakin, president; W. F. Lynch, assistant to the president; W. V. Griffin, vice-president; H. W. Snyder, treasurer, and W. H. Baker, secretary. John E. Bullard is vice-president and general manager in Cuba of the Compania Cubana.

The Sugar Industry

British Empire Sugar Federation

The July issue of *Tropical Agriculture* published details of the preference which the Imperial Parliament has conferred upon Empire Sugar. This preference should be regarded not so much as a subsidy to producers as a definite guarantee of a market for British Sugar within the United Kingdom, and more particularly as an encouragement to greater production within the Empire until our whole needs can be met from British sources.

The British Empire Producers' Organization has not been slow to recognize these facts and has despatched a circular letter to all British Sugar organizations urging them to federate for the purpose of amplifying and intensifying the work already carried on by the organization. It is suggested that the objects of the federation should include the following:

(a) To increase and improve the production of sugar in the British Empire.

(b) To secure for the producers preferential terms in all Empire markets, having in view the very favorable treatment accorded by foreign countries to their National or Colonial producers, and to arrange that wherever possible such terms shall take the form of money value preferences in import duties stabilized for a period of years.

(c) To arrange for the thorough understanding of Empire sugar questions by as large a number as possible of the members of legislatures, both in Great Britain and the Empire Overseas.

(d) To arrange publicity and propaganda to stimulate the public demand for Empire grown sugar.

(e) To act as an Enquiry Bureau in regard to all matters affecting sugar and to keep its constituent members in touch with the latest information, scientific, industrial, and economic, and to advise them when required in regard to markets and marketing methods.

(f) To promote for the benefit of its members research in the growing and manufacture of sugar and the study of the scientific production and industrial application of sugar by-products of all kinds.

(g) To make such arrangements as to marketing as may be of advantage to the industry as a whole and in this behalf to come to an agreement with the sugar using industries or any section of them.

It is suggested that the funds might be provided on the basis of production and that an annual amount at the rate of 3d. per ton produced should be subscribed by each producing part of the Empire.

Central Santa Marta

General Mario G. Menocal, former president of Cuba, is actively engaged in the development of his new mill, Santa Marta, near Santa Cruz del Sur, Camaguey province. An effort is being made to plant as much fall cane as possible and arrangements have been made with Central Vertientes to grind a portion of their surplus cane. General Menocal has purchased more than 100 tons of Santa Cruz 12(4) seed from the Aponte nursery at San Antonio de los Baños in Havana province. A nursery will be established at Santa Marta and if the variety does well it is understood that extensive plantings will be made by the colonos. This is a fair indication of the interest which is now being shown in Cuba in the matter of cane varieties other than Crystalina.

Import and Export Values

The value of refined sugar exported from the United States in August, 1925, was \$5,279,494, making the average value 3.50 cents a pound as compared with an average of 3.73 cents for sugar exported in July. The total value of sugar exported in the eight months ending August 31 was \$20,899,226 as compared with \$20,280,623 in the corresponding period last year.

The value of sugar imported in August was \$17,073,056, averaging 2.65 cents a pound. The total value of sugar imported to August 31 was \$192,345,063, compared with \$289,943,170 in the corresponding period of 1924.

Spanish Production

According to J. S. Calvert, American consul at Barcelona, quoting official figures, Spanish beet sugar production for 1925-26 is expected to equal if not to exceed the 273,000 short tons produced from 2,307,000 short tons of beets during the period July 1-March 31, 1924-25.

The quality for 1925-26 is said to be better than for 1924-25. Production during the 1923-24 season reached 183,000 short tons of sugar from 1,548,000 short tons of beets, and in 1922-23, 108,000 short tons from 1,006,000 short tons of beets.

Prices for beets in Saragossa, the leading producing province, for this season are \$13.70 per short ton against a range of from \$10.60 to \$14.60 per short ton received last season. The favorable prices received last year stimulated the beet acreage for the 1925-26 season.

Poland's Sugar Production

Anticipating a production of 470,000 tons or more from the sugar campaign now under way, the Polish government has established its regulations for the coming year. These provide a reserve for domestic consumption, the so-called inland contingent, amounting to 242,242 tons, with the requirement that the factories shall keep a further reserve of 48,442 tons in case the primary reserve is not sufficient for domestic needs. The small carry-over remaining from the last crop, together with 40 per cent. of the current production, is released for export.

As prices at home are higher than can be obtained abroad, the inland market is naturally preferred by the sugar producers. The government regulation providing for a pro-rata division of the inland trade is designed for the protection of the smaller and less up-to-date factories. To insure equality it is stipulated that any plant delivering more than its pro-rata share to domestic purchasers shall pay an extra tax of 40 zloty per 100 kilos, equivalent to 2.7 cents per pound, in addition to the regular consumption tax of 35 zloty per 100 kilos.

Consumption has risen rapidly in Po-

land with the increase in the size of the crop and now amounts to about 20,000 tons per month, compared with 15,000 tons in 1923-24, about 14,000 in 1922-23, and about 10,000 tons in 1921-22. The present consumption is equal to about 20 pounds per capita.

If production and consumption reach present estimates the quantity of sugar available for export will be about 200,000 tons, as compared with 190,000 tons during the past year and 153,000 tons in 1923-24. The destinations of the sugar exported during the past year were as follows:

Country	White Sugar	Raw Sugar
United Kingdom.....	59,691	34,532
Russia.....	14,905	.....
Latvia.....	5,429	.....
Finland.....	2,400	.....
Germany.....	2,249	27,363*
Danzig.....	1,010	19,753
Norway.....	520	.....
France.....	350	.....
Estonia.....	200	.....
Denmark.....	70	1,500
Lithuania.....	60	.....
Switzerland.....	30	.....
Holland.....	.....	31,988
Belgium.....	.....	599
Total.....	86,914	115,735

*Of this quantity 10,749 tons represented second runnings.

The area in beets this season is reported as 427,477 acres, or just about the pre-war average for the territory comprised within the present boundaries of the country. Last year the area sown to beets was 415,536 acres and the sugar production of 441,054 tons represented an average yield of 1.17 short tons of white sugar per acre. This season a yield amounting to 1.21 tons per acre is anticipated.

Guatemalan Export Duty

A modification of the export duty on sugar in Guatemala was effected by a presidential decree of May 19, 1925, effective from that date. The export tax was formerly \$0.20 per quintal, plus 10 per cent. of the amount by which the price exceeded \$3 per quintal. By the recent decree the duty is fixed at \$0.20 per quintal when the price does not exceed \$3, and at \$0.30 when the price is more than this.

Sugar Crop of Cuba 1924-1925

By H. A. Himely

HABANA		MATANZAS		CARDENAS	
	<i>Sacks</i>		<i>Sacks</i>		<i>Sacks</i>
Toledo.....	478,147	Gómez Mena.....	370,726	España.....	533,295
El Pilar.....	289,212	Conchita.....(C.C.)	329,001	Mercedes....(C.C.)	342,473
Providencia.....	246,074	San Antonio.....	227,175	Alava.....(C.C.)	328,309
La Julia.....(C.C.)	182,003	Rosario.....	222,212	Tinguaro....(C.A.)	249,586
San Cristóbal(G.S.C.)	180,193	Cuba.....	209,196	Santa Gertrudis	
Andorra.....	170,443	Hershey.....	207,222	(C.C.)	215,825
Mercedita (Pascual)	160,000	Amistad.....	204,878	Guipúzcoa.....	201,449
Ntra.Sra.del Carmen	157,234	Santa Amalia.....	152,574	Soledad.....(C.C.)	184,122
Mercedita....(C.A.)	150,515	Josefita.....	123,095	Covadonga.....	172,505
San Ramón.....	145,337	Jesús María.....	120,892	Washington.....	164,305
Orozco.....	131,885	Carolina.....	112,570	Por Fuerza.....	159,587
Portugalete.....	127,757	Australia.....	106,110	Araujo.....	156,171
La Francia.....	100,919	Santa Rita.....	104,004	San Vicente.....	103,388
Nombre de Dios....	99,235	Limones.....	97,124	Dolores.....	86,008
Habana.....	97,430	Sango Domingo....	93,497	Dos Rosas.....	71,383
Galope.....	80,010	Flora.....	90,446	Zorilla (Dulce	
Bahía Honda.....	77,589	Triunfo.....	89,060	Nombre).....	50,419
Niágara.....	70,410	San Ignacio.....	88,037		
Occidente.....	54,357	Nueva Paz.....	49,235	15 Centrals....	3,018,825
Puerto.....	35,409	Porvenir.....	24,600		
Fajardo.....	16,000	Elena.....	13,028		
21 Centrals....	3,050,159	21 Centrals....	3,034,682		
PUERTO TARAFÁ		CIENFUEGOS		SANTA CRUZ DEL SUR	
	<i>Sacks</i>		<i>Sacks</i>		<i>Sacks</i>
Morón... (E.C.S.C.)	705,869	Caracas.....	302,417	Francisco.....	461,290
Cunagua.....	601,031	Hormiguero.....	285,448	Macareño.....	204,030
Jaronú.....	600,333	Andrefita.....	200,391		
Violeta... (E.C.S.C.)	486,782	Constancia... (C.A.)	190,666	2 Centrals....	665,320
Senado.....	406,301	Santa Catalina....	185,829		
Agramonte. (G.S.C.)	397,481	San Agustín.....	184,672	ANTILLA	
Florida.....(P.A.)	378,235	Perseverancia.(C.C.)	181,916		<i>Sacks</i>
Céspedes.....	354,240	Santa Rosa. (G.S.C.)	150,623	Preston.....	583,543
Vertientes. (G.S.C.)	350,801	Santa María.....	135,185	Miranda.....	453,165
Lugareño. (E.C.S.C.)	319,035	Portugalete.....	122,779	Jobabo.....	362,368
Ciego de Avila....	158,848	Soledad.....	121,627	Tacajó.....	256,932
Velasco(E.C.S.C.)(1)	113,380	Ferrer.....	120,015	Baguanos.....	255,344
12 Centrals....	4,872,336	Parque Alto.....	111,809	Alto Cedro.....	249,327
		Manuelita.....	107,400	Cupey.....	187,532
SANTIAGO DE CUBA		San Francisco.....	107,104	San Germán.....	175,040
	<i>Sacks</i>	María Victoria(C.C.)	102,890	Presidente.....	100,494
Palma.....	298,661	Dos Hermanas....	101,189	Maceo.....	63,960
América.....	202,182	Pastora.....	80,831	Cacocum.....	55,896
Oriente.....	150,273	Cieneguita.....	75,084		
Hatillo.....	136,316	San Cristóbal (Car-	37,630	11 Centrals....	2,743,601
Santa Ana.....	123,224	doso).....			
Borjita.....	76,424			MANZANILLO	
Unión.....	73,000	20 Centrals....	2,905,505		<i>Sacks</i>
7 Centrals....	1,060,080			Niquero.....	222,305
JUCARO		GUANTÁNAMO		Isabel.....	218,275
	<i>Sacks</i>		<i>Sacks</i>	Río Cauto.....	208,210
Baraguá.....(P.A.)	605,573	Almeida.....	189,695	Cape Cruz.....	121,485
Stewart. (E.C.S.C.)	552,506	Ermita.....	160,090	Mabay.....	100,339
Jagüeyal. (E.C.S.C.)	425,493	Soledad.....(G.S.)	152,653	Salvador.....	73,274
Adelaida.....	320,356	Los Caños....(G.S.)	145,861	Teresa.....	61,641
Algodones.....	251,316	Esperanza.....	128,888	Sofía.....	55,102
Patria.....	156,850	Romelie.....	80,050	Estrada Palma...(1)	54,275
6 Centrals....	2,312,094	San Antonio.....	78,670	Dos Amigos.....	50,561
		Santa Cecilia.....	60,647	Pennsylvania....	10,080
		Isabel.....(G.S.)	46,575		
		9 Centrals....	1,043,129	11 Centrals....	1,175,547
				BANFES	
	<i>Sacks</i>		<i>Sacks</i>		<i>Sacks</i>
				Boston.....	511,884
				1 Central.....	511,884

CAIBARIEN		SAGUA		NUEVITAS	
	<i>Sacks</i>		<i>Sacks</i>		<i>Sacks</i>
Punta Alegre. (P.A.)	541,108	Santa Teresa.....	232,030	Jatibonico.....	459,781
Narcisa.....	336,518	San Isidro . (G.S.C.)	197,471	Elia.....	417,049
Fe.....	184,203	Santa Lutgarda....	195,227	Estrella.... (G.S.C.)	325,277
San Agustín.....	179,475	Nazábal.....	189,400	Tuinucú.....	314,492
San José.....	175,364	Constancia.....	182,775	Pilar..... (G.S.C.)	190,345
Vitoria.....	170,358	Resulta.....	162,452	Camagüey.. (G.S.C.)	162,841
Reforma.....	154,445	Ramona.....	149,305	Najasa.....	145,600
Zaza.....	152,517	Ulacia.....	125,699	La Vega.....	137,515
Carmita.....	118,039	Resolución.....	119,643	San Antonio.....	71,267
Adela.....	115,633	Purio.....	119,531	Agabama.....	58,356
Fidencia.....	113,169	Unidad..... (C.A.)	99,007	Siboney..... (1)	40,547
María Luisa.....	82,505	Macagua.....	69,839	Cabaiguán.....	32,600
Tahon (San Pablo).	40,234				
Nela.....	35,000				
14 Centrals....	2,398,568	12 Centrals....	1,842,379	12 Centrals....	2,355,670
MANATÍ		PUERTO PADRE		TÁNAMO	
	<i>Sacks</i>		<i>Sacks</i>		<i>Sacks</i>
Manatf.....	617,830	Delicias..... (C.A.)	813,089	Tánamo.....	269,426
1 Central.....	617,830	Chaparra..... (C.A.)	586,773	1 Central.....	269,426
		2 Centrals....	1,399,862		
GIBARA		CASILDA (TRINIDAD)		ZAZA	
	<i>Sacks</i>		<i>Sacks</i>		<i>Sacks</i>
Santa Lucía.....	253,697	Santa Isabel.....	142,048	Natividad.....	56,336
1 Central.....	253,697	Trinidad..... (P.A.)	100,865	Santa Ana de los	
		2 Centrals....	242,913	Mapos.....	13,108
				2 Centrals....	69,444

RÉSUMÉ

<i>Ports</i>	<i>Centrals</i>	<i>Sacks</i>	SIX PORTS 2,321,445 Tons.
Habana.....	21	3,050,159	
Matanzas.....	21	3,034,682	
Cárdenas.....	15	3,018,825	
Cienfuegos.....	20	2,905,505	
Caibarién.....	14	2,398,568	
Sagua.....	12	1,842,379	OTHER PORTS 2,798,976 Tons.
	103	16,250,118	
Puerto Tarafa.....	12	4,872,336	
Antilla.....	11	2,743,601	
Nuevitas.....	12	2,355,670	
Júcaro.....	6	2,312,094	
Puerto Padre.....	2	1,399,862	
Manzanillo.....	11	1,175,547	
Santiago de Cuba.....	7	1,060,080	
Guantánamo.....	9	1,043,129	
Santa Cruz del Sur.....	2	665,320	
Manatf.....	1	617,830	
Banes.....	1	511,884	
Tánamo.....	1	269,426	
Gibara.....	1	253,697	
Casilda (Trinidad).....	2	242,913	
Zaza.....	2	69,444	
	80	19,592,833	CROP: 5,120,421 Tons.

Sugar Crops of the World

Tons of 2,240 pounds (except Europe)

EUROPE (metric tons):	1924-25	1923-24
Czechoslovakia.....	1,420,000	1,018,000
Austria.....	75,000	47,000
Hungary.....	200,000	124,000
Germany and Danzig.....	1,601,000	1,156,000
France.....	830,000	496,000
Belgium.....	400,000	300,000
Netherlands.....	322,000	226,000
Denmark.....	141,000	109,000
Sweden.....	135,000	149,000
Italy.....	420,000	347,000
Spain.....	260,000	187,000
Poland.....	490,000	371,000
Russia.....	494,000	419,000
Rumania.....	111,000	82,000
Jugoslavia.....	144,000	45,000
Other countries.....	77,000	52,000
Total Europe.....	7,120,000	5,128,000
Total tons of 2,000 lbs.....	7,846,000	5,651,000
AFRICA:		
Natal*.....	146,000	183,000
Mozambique.....	58,000	60,000
Egypt.....	100,000	90,000
Mauritius.....	221,000	202,000
Reunion.....	52,000	44,000
Other countries.....	10,000	9,000
Total Africa.....	587,000	588,000
Total tons of 2,000 lbs.....	657,000	659,000
THE FAR EAST:		
Philippines.....	515,000	368,000
Java*.....	1,977,500	1,771,000
Japan and Formosa.....	480,000	455,000
India.....	2,537,000	3,317,000
China.....	350,000	350,000
Australia*.....	435,500	282,000
Fiji.....	65,000	45,000
Total Far East.....	6,360,000	6,588,000
Total tons of 2,000 lbs.....	7,123,000	7,379,000

*Natal 1925-26 crop est. 187,500 tons.

*Java 1925-26 crop est. 2,200,000 tons.

*Australia 1925-26 crop est. 499,000 tons.

NORTH AMERICA:	1924-25	1923-24
United States—		
Beet sugar*.....	976,800	787,000
La., * Tex. and Fla.....	80,200	148,000
Hawaii.....	673,000	634,000
Porto Rico.....	589,000	399,700
Virgin Islands.....	7,000	2,300
Total United States.....	2,326,000	1,971,000
Total tons of 2,000 lbs.....	2,605,000	2,208,000
Canada (beet).....	36,000	17,500
Cuba.....	5,100,000	4,060,000
Santo Domingo and Haiti.....	295,000	228,000
British West Indies.....	205,000	165,000
French West Indies.....	58,000	44,000
Mexico.....	170,000	168,000
Central America.....	90,000	78,000
Total North America.....	8,280,000	6,731,500
Total tons of 2,000 lbs.....	9,274,000	7,539,000

SOUTH AMERICA:	1924-25	1923-24
Argentina.....	245,000	252,000
Brazil.....	798,000	786,000
Peru.....	308,000	307,000
British Guiana.....	100,000	95,000
Surinam.....	10,000	11,000
Venezuela.....	18,000	18,000
Other countries.....	35,000	27,000
Total South America.....	1,514,000	1,496,000
Total tons of 2,000 lbs.....	1,696,000	1,676,000
Total Western Hemisphere.....	9,794,000	8,227,500
Total tons of 2,000 lbs.....	10,969,000	9,215,000
Total Eastern Hemisphere.....	14,067,000	12,304,000
Total tons of 2,000 lbs.....	15,627,000	13,689,000
World's total (long tons).....	23,747,000	20,450,000
World's total tons of 2,000 lbs.....	26,597,000	22,904,000
Equivalent in refined (long tons).....	20,775,000	18,420,000

*U. S. 1925-26 beet sugar crop est. 717,000 tons.

*Louisiana 1925-26 crop est. 213,660 tons.—*Facts About Sugar*.

Cuban Sugar Mills Liable to 2 Per Cent. Tax on Gross Incomes

The Secretary of Finance of Cuba has ruled that the sugar mills must pay the 2 per cent. tax on gross income from all cane ground, whether it is produced on the company's own land or bought from independent planters. (Commercial Attaché Carlton Jackson, Habana.)

Canadian Sugar Exports

Exports of refined sugar from Canada in August totalled 16,417 long tons, an increase of 10,000 tons over those of August, 1924, according to the statement of the Dominion Bureau of Statistics. The value of the August exports was \$2,254,671, or \$1,252,847 more than last year. Of the total quantity exported 15,498 tons went to the United Kingdom and 919 tons to other countries.

Production of India

The first estimate of British India cane sugar acreage for 1925-26 is placed by the secretary, sugar bureau of the city of Pusa, at 2,542,000 acres, compared with 2,532,000 acres last season.

Street Improvements Contemplated in Cuba

A prominent Cuban jurist has been appointed by the President for the expropriation of land and buildings in the plan of embellishment and improvement of Habana. Condemnation proceedings are already under way, owing to the desire of accomplishing the proposed construction as promptly as possible. The first properties to be expropriated are those along Teniente del Rey which will be made into a wide avenue, beginning at the water front and extending to Belazcoain. (Commercial Attaché Carlton Jackson, Habana.)

New Asylum

The asylum "Maria Jáen" for children was recently opened in Habana, the President of the Republic and a number of prominent people attending the ceremony. This asylum has two sections, one for boys from 12 to 16 years of age, and the other for younger boys from 7 to 12 years of age. All the rooms are well equipped and ventilated; provisions have been made for using two of the rooms as schoolrooms; there is also an infirmary and a dispensary. The asylum has accommodations for 300 children, ranging in age from 7 to 16 years.

Cuban-American's Outturn

Final 1924-25 crop figures of the Cuban-American Sugar Company show a production of 2,102,324 bags of 325 pounds, which compares with 1,853,202 bags in 1923-24 and 1,847,746 in 1922-23, or an increase of 13.5 per cent. The company's two largest mills, Chaparra and Delicias, failed to reach the estimates made at the beginning of the crop because of labor troubles which interrupted operations. Both, however, exceeded their previous year's outturns, Delicias making 813,089 and Chaparra 586,773 bags as compared was 775,786 and 508,240, respectively, in 1923-24. The combined production of Centrals Constancia, Mercedita, Unidad and Tiguaro was 803,462 bags, against 573,522 last season.

Sugar Imports in August

Trade returns of the Department of Commerce show imports of sugar into the United States during August amounting to 321,460 short tons (287,018 long tons), or roundly 42,500 tons less than was imported in July, and 20,000 tons more than imports in August, last year. Imports for the month consisted of 278,212 tons from Cuba, 42,045 tons of duty free Philippine and Virgin Island sugars, and 1,163 tons of full duty paying sugars.

This makes total imports for the first eight months of 1925, ending August 31, of 3,343,028 short tons, or 2,984,846 long tons, a quantity greater by 162,556 tons than was imported in the corresponding period last year and 330,483 tons more than the eight months' total of 1923. The comparative figures for the three years, in tons of 2,000 pounds, are as follows:

	1925	1924	1923
Cuban.....	2,914,784	2,842,580	2,743,063
Duty free....	388,416	281,760	217,506
Full duty....	39,828	56,132	51,976
Total.....	3,343,028	3,180,472	3,012,545

The 388,416 tons of duty free sugars imported up to the end of August this year comprised 384,186 tons from the Philippines and 4,230 tons from the Virgin Islands. Duty free imports in August included 40,345 tons of Philippines and 1,740 of Virgin Island sugars.

Full duty imports in August consisted of 1,031 tons from Central America, 120 tons from Santo Domingo, and 12 tons from other countries. Of the total full duty imports this year of 39,828 tons, 14,035 came from Mexico, 9,668 from Nicaragua, 3,995 from Guatemala, 2,240 from Salvador and 795 from Honduras. Other sources of full duty imports were Java, 7,538 tons; Peru, 1,050; Hongkong, 167; Santo Domingo, 120, and Canada, 79, with 134 tons coming from Europe and seven tons from other quarters of the world.

The distribution by ports of receipt of sugar imported in August and in the eight months ending August 31 was as follows, in tons of 2,000 pounds:

At	August	Jan. 1-Aug. 31
New York.....	85,283	1,091,171
Philadelphia.....	64,733	742,290
Boston.....	18,904	217,477
Baltimore.....	20,301	184,807
Savannah.....	25,085	143,829
New Orleans.....	88,094	636,497
Galveston.....	14,878	200,507
San Francisco.....	1,823	95,000
Other ports.....	2,359	31,450
Total.....	321,460	3,343,028

United States Exports of Leather Footwear

According to statistics published by the Department of Commerce, the United States exported during the first seven months of 1925 1,652,695 pairs of leather boots and shoes valued at \$5,300,478 for men and boys, of which Cuba received 928,181 pairs, an increase of 0.5 per cent. over the quantity exported to that country during the corresponding period of 1924.

The exportation of women's shoes which amounted to 1,490,730 pairs valued at \$3,119,187 during the 1925 period shows a quantity increase of 26.5 per cent. over the corresponding period of the previous year. Cuba, the largest market, was supplied with 592,309 pairs an increase of 61.3 per cent.

Exports of children's shoes totaled 972,616 pairs valued at \$1,096,325, an increase of 1.4 per cent. over the trade in the first seven months of 1924. There was a slight falling off in the demand from Cuba.

United States the World's Largest Sugar Consumer

R. L. PURDON

Foodstuffs Division, United States Department of Commerce

The United States is the world's largest sugar consumer, taking about 25 per cent of the total world supply each year. It possesses the world's greatest refining industry, and imports sugar in raw form to the refineries, whence it flows into trade channels, both foreign and domestic, after refining.

FIGURES FOR 1924 COMPARED WITH THOSE FOR 1923

There was little change in 1924 in the normal sources of the United States' annual sugar supplies. Cuba, as usual, supplied more than half of the total. Receipts from our noncontiguous territories, as a whole, increased 4 per cent, while the percentage supplied by domestic production decreased 1 per cent compared with 1923. Domestic beet sugar gained 1 per cent and domestic cane dropped 2 per cent.

With regard to quantities, there was a slight increase in domestic production, while imports, exports, and per capita consumption showed decreases from 1923 levels.

The average wholesale price per pound at New York for raw 96° centrifugals and for refined granulated was a cent less for 1924 than for 1923.

The United States' supply of sugar is drawn from the following sources:

SOURCES OF UNITED STATES' SUPPLY OF SUGAR AND PER CENT OF THE TOTAL *

Source	Per cent of total supply	
	1923	1924
Domestic production:		
Cane.....	4	2
Beet.....	16	17
Total.....	20	19
Noncontiguous territories:		
Philippines.....	4	6
Hawaii.....	9	11
Porto Rico.....	6	6
Total.....	19	23
Cuba.....	56	56
Other foreign countries..	5	2
Grand total.....	100	100

*The figures are to be credited to Lamborn & Co. (Inc.).

STATISTICS FOR THE FISCAL YEARS 1913 TO 1924

The following table, based on data contained in the 1924 Statistical Abstract of the United States, published by the Department of Commerce, shows trends in the factors affecting the position of the United States with regard to sugar:

UNITED STATES' PRODUCTION, IMPORTS, EXPORTS, CONSUMPTION, AND PRICES OF SUGAR

Year Ended June 30th	Raw Sugar			Refined Sugar	New York Wholesale Price per Pound	
	Domestic Pro- duction	Imports	Exports	Appar- ent per Capita Consump- tion	Raw	Refined
	Millions of Pounds	Millions of Pounds	Millions of Pounds	Pounds	Cents	Cents
					96	
1913.....	1,710	6,591	67	85.3	0.035	0.043
1914.....	2,068	6,823	97	89.8	.038	.047
1915.....	1,937	7,291	601	86.8	.047	.056
1916.....	2,026	7,620	1,685	79.0	.058	.069
1917.....	2,263	7,473	1,268	82.9	.063	.077
1918.....	2,022	6,657	589	78.1	.064	.078
1919.....	2,090	7,755	1,065	83.6	.075	.089
1920.....	1,697	9,489	1,451	91.5	.130	.127
1921.....	2,530	8,806	790	97.8	.047	.062
1922.....	2,696	10,595	2,057	102.9	.047	.059
1923.....	1,940	10,639	805	106.3	.070	.084
1924.....	2,086	9,445	312	100.1	.060	.073

Sugar Review

Specially written for THE CUBA REVIEW, by Willett & Gray, New York, N. Y.

Our last report was dated September 18, 1925. The news during the month was not favorable for the maintenance of the prices then quoted, say basis 2 7/16c. c. & f., as all information about the crops now growing indicated that there may again be large supplies for the next campaign. These conditions appeared to have had an adverse effect on the whole situation, both raw and refined sugars, and the market has steadily declined during the period under review and prices are now down to 2c. c. & f. This latter price seemed to appeal to refiners to some extent, particularly as they had bought very few sugars recently, and their raw stocks were somewhat depleted and, hence, sales aggregating 50,000 tons were made during the past few days to various New York and outport refiners, on the basis of 2c. c. & f. At this price the market is not fully maintained, as there are some sugars owned by operators, chiefly Philipppines, that are available below the 2c. c. & f. basis. These operators were enabled to offer sugars down because of the sharp decline in the price of December delivery on the Sugar Exchange, the quotation for this delivery declining to 1.96 c. per pound at one time on October 22d.

Referring again to the crop advices regarding next year, the first estimate of the European beet crop was given out early in October, the crop being estimated by Messrs. F. O. Licht as 7,605,000 tons of beet for the European crop. This compares with 7,077,791 tons outturn for the preceding crop. The Java crop, now harvesting, has been further increased in size, this crop now being estimated to outturn 2,290,000 tons of sugar.

The United Kingdom refiners, as well as Continental buyers, have been interested, to some extent, in Cuban sugars for November-December shipment, but there has been keen competition between Cane sugar and Continental Beet. Poland, who last year exported a round quantity of sugar to Russia, finds that the Russian market, to a great extent, will be lost next year owing to the increased Russian crop, and this has caused free offerings of Poland raw Beet sugars in other European markets. The above has resulted in a general decline throughout Europe, and Cuba Cane sugars are now available in the United Kingdom at 9s 6d c. i. f. U. K. ports, which is equal to about 2c. c. & f. for Cubas if shipped to New York.

The United States Beet crop has commenced and is being offered in territory west of Chicago to the Rocky Mountains, as well as east of Chicago to Buffalo-Pittsburgh, and although the crop is not expected to be as large as that of last year, all indications point to severe competition for the sale of this year's crop. The present quotation of Beet Granulated for both the territories mentioned is 4.90c. seaboard basis.

To indicate some idea as to the trend of prices next year, it will be noted that English refiners are quoting British Granulated at the same price for all deliveries, from prompt up to March, 1926.

REFINED.—The demand for refined has again come back to the hand-to-mouth basis and this has led to severe competition between the various refiners to get a share of the business going on, which has resulted in general declining prices during the month, the present quotations being Arbuckle and Federal 5.00c., with the other refiners 5.10c., usual terms.

New York, N. Y., October 22, 1925.

Sugar in Hungary

Sugar beet acreage in Hungary, as shown in the official report, is 163,600 acres, compared with 167,904 acres in 1924. In spite of the decreased acreage, beet production is forecast at 1,701,000 short tons compared with 1,404,600 tons harvested in 1924.

Pan American Sanitary Code

The Pan American Sanitary Code, signed in the city of Habana on November 14, 1924, by Cuba and the Pan America Republics, was approved by the Cuban Senate on June 14, 1925, and ratified by the President of the Republic on June 26, 1925.

Revista Azucarera

Escrita especialmente para la CUBA REVIEW por Willett & Gray, de Nueva York.

Nuestra última revista estaba fechada el 18 de septiembre de 1925. Las noticias recibidas durante el mes no eran favorables para sostener los precios entonces cotizados, digamos bajo la base de 27/16c. costo y flete, pues toda la información acerca de las plantas ahora creciendo indicaban que puede haber otra vez grandes existencias para la próxima estación. Estas condiciones parece que tuvieron un efecto adverso en toda la situación, tanto para el azúcar crudo como el refinado, y el mercado ha bajado constantemente durante el período bajo reseña y los precios han bajado ahora a 2c. costo y flete. Este último precio parece agradar a los refinadores hasta cierto punto, particularmente al haber comprado muy poco azúcar recientemente y sus existencias de azúcar crudo estaban algo escasas, y de aquí el que tuvieran lugar ventas ascendiendo a 50,000 toneladas durante estos últimos días a varios refinadores de Nueva York y fuera del puerto bajo la base de 2c. costo y flete. A este precio el mercado no está completamente sostenido, pues hay algún azúcar en poder de especuladores, principalmente de las Filipinas, que están disponibles a un precio más bajo de la base de 2c. costo y flete. Dichos especuladores no pudieron ofrecer azúcar a precio más bajo a causa de la aguda baja en el precio en la Bolsa de Azúcar para entregas de diciembre, la cotización para dicha entrega bajando a 1.96c. la libra en una ocasión el 22 de octubre.

Refiriéndonos otra vez a las noticias de la cosecha respecto al año próximo, el primer cálculo de la cosecha de remolacha europea se dió a principios de octubre, calculándose la cosecha por los Sres. F. O. Licht en 7,605,000 toneladas de azúcar de remolacha para la cosecha europea. Esto se compara con 7,077,791 toneladas producidas en la cosecha anterior. La cosecha de Java, recolectándose ahora, ha aumentado aún más en volumen, calculándose ahora que esta cosecha rendirá 2,290,000 toneladas de azúcar.

Los refinadores de la Gran Bretaña, así como los compradores del Continente europeo, se han interesado hasta cierto punto en los azúcares de Cuba para embarcar en noviembre y diciembre, pero ha habido una aguda competencia entre los interesados en el azúcar de caña y de remolacha del Continente.

Polonia, que el año pasado exportó bastante cantidad de azúcar a Rusia, ve que perderá el mercado ruso el año próximo en gran manera debido al aumento en la cosecha de Rusia, y esto ha ocasionado buenas ofertas de azúcar crudo de remolacha de Polonia en otros mercados europeos. Lo antedicho ha resultado en una baja general por toda Europa, y los azúcares de caña de Cuba están ahora disponibles en la Gran Bretaña a 9s 6d costo, seguro y flete en puertos de la Gran Bretaña, lo cual es equivalente a unos 2c. costo y flete por el azúcar de Cuba si se embarcan para Nueva York.

Ha empezado la cosecha de remolacha de los Estados Unidos y se está ofreciendo en territorio al oeste de Chicago a las Montañas Roquizas, así como del este de Chicago a Buffalo-Pittsburgh, y aunque no se espera que la cosecha sea tan grande como la del año pasado, todo indica grande competencia para la venta de la cosecha de este año. La cotización actual de azúcar granulado de remolacha para ambos territorios mencionados es 4.90c. bajo base del litoral marítimo.

Para dar alguna idea acerca del giro de los precios el año próximo, se notará que los refinadores ingleses están cotizando el azúcar inglés granulado al mismo precio para todas las entregas, desde pronta entrega hasta marzo de 1926.

REFINADO.—La demanda por el azúcar refinado ha vuelto otra vez a la base de pequeñas cantidades, y esto ha conducido a grande competencia entre los distintos refinadores para obtener una participación en las transacciones que tienen lugar, lo cual ha resultado en la baja general de los precios durante el mes, siendo las cotizaciones actuales: la refinería Arbuckle y la Federal 5.00c., y los otros refinadores 5.10c., bajo condiciones usuales.

Nueva York, octubre 22 de 1925.

Fiftieth Anniversary of the Link-Belt Company

Fifty years have passed since the incorporation of the Ewart Manufacturing Company, the forerunner of the present Link-Belt Company, in 1875. In commemoration of the fiftieth anniversary, the Link-Belt Company has published an attractive book entitled "Link-Belt 1875-1925."

In this book it is mentioned that the patent of William Dana Ewart, a young implement dealer, from Belle Plaine, Iowa, for the detachable link chain, was dated September 1, 1874. Mr. Ewart first started to build a self binding harvester, but he realized the great need in such a machine for a detachable chain drive that could be repaired in the field; and he worked out the idea of a chain drive, the links of which could easily be replaced by the farmer, who up to that time had been wasting much time in going back to the barn or blacksmith shop for necessary repairs to the "strap-link" chain drives that were used on some of the first crude binders; or trying to adjust the flat belts, which stretched and tightened under varying conditions of heat or moisture in the field.

Late in 1874 when Mr. Ewart came to Chicago with a view to arousing some interest in his "detachable link chain," he succeeded in interesting John C. Coonley, a lawyer who was then President of the Chicago Malleable Iron Company. As a result a company was duly incorporated in 1875, under the name of the Ewart Manufacturing Company, for manufacturing detachable link chain. In 1876, the Ewart chains were exhibited at the Philadelphia Centennial.

New uses for the invention developed rapidly, and in 1880 the Link-Belt Machinery Company was incorporated "to design, build, and supply accessory parts, and install elevating and conveying machinery employing Ewart Chains," the plant for this company was built in Chicago.

In 1888 the Link-Belt Engineering Company was formed with a plant in Philadelphia. These two plants found increasing numbers of new uses for the chain, with the result that all three plants continued to grow in size until in 1906 a con-

solidation of the three interests took place, and Charles Piez elected President.

It will be remembered that Mr. Piez was Director General of the Emergency Fleet Corporation during the World War.

Mr. Piez is now Chairman of the Board of Directors, and Alfred Kauffmann, formerly Vice-President in charge of the two Link-Belt plants in Indianapolis, is now President of the Company.

From the humble beginning in 1875 this company now operates and owns ten large manufacturing plants, with seven shops and warehouses, and twenty-seven branch offices, and its products now include Elevating and Conveying equipment for all kinds of materials; complete equipment for the handling and cleaning of coal, on the ground and in the boiler house, complete coal Tipples and Coal Washing Plants, Sand and Gravel Washing and Preparing Plants, Sand Preparing and Conveying Machinery for the modern foundry, Locomotive and Crawler type cranes, Silent Chain drives for industrial plants, and for the front end of the automobile—in fact, Link-Belt today builds complete equipment for conveying, handling and power transmission.

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